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THESIS

INTERNATIONAL TRENDS IN THE COTTON INDUSTRY

by

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INTRODUCTION

In making an international study of the trends in the cotton textile industry I have given considerable time to research in the different phases of the industry.

My first intention was to cover every country that either produced raw cotton or manufactured cotton goods. In my course of research I found it impossible to give the necessary time required to make a true,concise report as volumes could be filled on the subject. Not having this time I therefore restricted my research to the principal producing and manufacturing countries for this study.

The following pages contain a brief history of the cotton textile industry in each country treated, together with the results of my research on the world cotton situation.

The report contains information on foreign and domestic production, factors affecting the production of cotton both in United States and abroad,the result of the Agricultural Adjustment Act of 1933,information on the manufacturing industry both in United States and Abroad,the result of the National Industrial Recovery Act and marketing problems in both raw cotton and manufactured cotton goods.

My conviction is that the chief source of the trouble in the cotton textile industry is that within the last ten years United States and Great Britain have given a great deal of attention to developing their rayon industries. In a great many cases rayon has replaced cotton goods. Another factor is the competition from Japan due to her low production costs. Their recent improvements in textile machinery and extremely low labor cost have made it possible for her to undersell in the world markets.

UNITED STATES

Historical Background

Cotton in the United States dates back to the early settlers. About the year 1536, it was found growing in the Southern part in places now known as the States of Texas and Louisiana. It is believed that the seeds were brought to the United States from the West Indies. The first cotton for commercial use was produced in Virginia about 1607.[1]

Starting from these early days, the American cotton manufacturers could successfully compete with English cotton in the United States market. In the early 19th Century, our shipping was the object of prey of both France and England. To prevent the seizure of American ships, President Jefferson persuaded Congress to pass the Embargo Act of 1807. Since our Commerce with Europe was cut off, it became necessary to manufacture our own goods or to go without. Then followed the Intercourse Act and the War of 1812 and the United States was thrown on her own resources. Many cotton manufacturers developed as a result.

About the year 1815, our manufacturers faced a period of depression due to the dumping of foreign accumulated goods in American markets. At this time, a tariff of 25 cents a yard on cotton and woolen goods was placed.[2]

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1. The Pepperell Mfg. Co.-"Cotton from Plant to Product"-p-10
2. Jenney's W.W.-"A History of Economic Progress in United States", p.-8

At the outbreak of the Civil War in 1861, the South was enjoying prosperity due to its cotton crop. It was this cotton crop that England depended on to run her manufacturing industry. At this time, Great Britain was the important cotton manufacturing country of the world, and the United States the leading cotton producing country of the world. The British cotton mills were using about 90 per cent of the American cotton.[1]

At the commencement of the Civil War, a blockade was put into operation and this ruined the South because with the cessation of American exports the British mills ceased to produce and a general depression prevailed lasting for many years.[2]

After the war, exports of raw cotton were soon resumed but at a much higher rate. This resulted in limited sales of the manufactured goods because England had shipped most of her manufactured goods to Asia, Africa and to her colonies in the Western Hemisphere. With higher prices, their demand fell off. However, by 1880, the growth of southern mills in the United States became so rapid that their progress was even noted in New England.[3]

Prior to 1914, England consumed about 90 per cent of American cotton. Today, the United States supplies her with less than 50 per cent of her requirements. Because of our high prices,

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1.Bader,Louis-"World Developments in The Cotton Industry"-p.3
2. Ibid p.4
3. Ibid p.5

England had encouraged India and Egypt to grow more cotton. England had even geared her machinery, in many instances, to fit the shorter staple cotton produced by these countries.[1]

The World War led to many changes which have affected the cotton industry in both England and the United States.[2]

England before the war used to ship over six billion yards of cotton goods, but as the war lengthened into years England needed her products for war purposes therefore the exports diminished. The buyers of English goods still needed clothing so they looked elsewhere for their requirements and found them in the United States.

The United States increased her production both in raw material and manufactured goods, all she could. The exports increased to 881,000,000 yards of cotton goods in 1920. The United States not being able to supply enough of goods, Japan was appealed to and other countries in which some manufacturing had been carried on and which were not directly concerned in the war. This resulted in Japan, India, China and Brazil installing new machinery and increasing their output as rapidly as possible. The scarcity of cotton goods became so acute that business men all over saw great profits. As a result, mills have been established on a small scale all over South America.[3] This is partly the cause of our cotton textile conditions.

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1. "Ibid" - p.5
2. "Ibid" - pp. 6-7 -73.
3. Louis Bader -"World Developments in The Cotton Industry".p.6

The result of the World War in the cotton industry is that Japan, having been given her start during the war and taking advantage of it, she increased her textile operations tremendously so that she has become the competitor of both the United States and England for the Oriental trade which was their most important field.[1]

Production

The United States has a larger area devoted to the production of cotton than has any other country in the world. The cotton acreage has declined from an average of 45,792,000 acres in 1925 to 26,987,000 acres in 1934. A large decline, to 35,939,000 in 1932, was due to a voluntary reduction on the part of a large number of growers. The great decline in 1934 was the result of the Agricultural Adjustment Administration program which involved a rental of a portion of the area formerly produced. About 10,495,000 acres were removed from cultivation by the Secretary of Agriculture in 1933. It is estimated that about 29,166,000 acres was cultivated in 1935.[2] This is the lowest since 1915.

Production has invariably followed acreage planted; a decrease in acreage means a smaller crop. Since 1925-26, when we had our peak of production, 16,104,000 bales, we have declined to 9,472,022 bales in 1934-35.[3]

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[1] Louis Bader -"World Development in the Cotton Industry".pp.16-20

[2] U.S.Dept. of Commerce Bulletin, 172-p.18

[3] U.S.Dept. of Commerce Bulletin, 172-p.27

Total supply of cotton in the United States in March, 1935 was 10,785,000 of which the Government has control of about 5,700,000. There were 1,329,000 bales on farms and in transit, which if marketed will evidently be placed under Government loan for the farmer can obtain about 1½ cents a pound more through the loan than in the open market.

This will limit the supply available for five months' consumption of exports and mill stocks to about 3,750,000 bales at the end of the season. It is difficult to judge the sufficiency of this supply because last year on July 31,1934, of the total of 4,350,000 bales, the mills held 1,172,000 bales. It appears that if the Government should give the loan of 12 cents on the next crop, it can force the market price back to that level. This would only prolong conditions described. Secretary Wallace has announced that the 12 cents loan in existence on July 31, 1934 will extend indefinitely and will also be made on 1935 crops, but the rate was not decided on. The risk in carrying stocks of cotton goods is discouraging in the trade.[1]

United States cotton may be classified according to its commercial value, grade, color and length of staple, all of which are important in determining the value of the cotton.

The Sea Island cotton is the most valuable of all American cotton. It is grown in South Caroline. It has strong fibers and varies from 1 to 2 inches in length. It is used mostly for automobile tires and high grade cotton fabrics.

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1. The National Bank of New York-"Decline in Cotton".April,1935-p.57

In Arizona and California, there is the American-Egyptian cotton, sometimes called Pima, which is next in value to the Sea Island. Its length of staple varies from 1-3/8 to 1-11/16 inches. In 1925, the amount of this cotton produced exceeded the 1920 crop, but since that time it has declined quicker in acreage than any other variety.

Cotton called "staple cotton" is the Upland Long staple variety. Its fiber length varies from 1-1/8 to 1-1/2 inches. It is produced in the Delta region in Mississippi and constitutes the greatest part of the long staple growing in the United States.[1]

About 90 per cent of the cotton produced in the United States and 60 per cent of the world's crop is of the short-staple Upland variety. Short-staple Upland cotton is produced in all parts of the cotton belt, the State of Texas being the principal producer. It is this type of cotton which forms the bulk of our export trade and which is used mostly in domestic mills. The short-staple Upland cotton is a white cotton of medium, soft texture from 5/8 to 1-1/8 inches in length.[2]

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1. Pratt, Edqard E. "International Trade in Staple Commodities" - pp.17-18

2. Ibid p.19

Factors Affecting Production

The United States cotton belt extends from the Atlantic seaboard to New Mexico and from Southern Texas to Oklahoma. It contains about 1500 miles from East to West and 700 miles from North to South. The area is larger than France, Germany, Italy and Spain together. It takes up about one-fourth of the entire area of the United States and about one-fifth of the entire population.[1]

The variations in the cotton yield are due primarily to the numerous types of soil in the cotton belt.

The soil varies from the rich alluvial lands bordering the silt-laden rivers which are periodically renewed by their overflowing as contrasts with the sandy, hilly uplands which are slashed with great ditches from the mountains. Then there is the coastal plain of the Southeast which is swampy or thickly wooded as contrasts with the high, semi-arid and treeless plain of Texas.[2]

The climate on the whole is favorable to the growing of cotton. The largest part of the cotton area has an average summer temperature of 77 degrees and the frostless season is about two hundred days. This kind of climate is best for cotton that is to be grown for commercial use because it requires a long growing season free from frost.[3]

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1. Alston Hill Garside -"Cotton Goes to Market". p. 16
2. Alston Hill Garside -"Cotton Goes to Market". p. 12
3. Leo D.O'Neil -"Lectures on Economic Geography". July, 1935.

The rainfall in the cotton area varies from twenty-three inches in Texas and Western Oklahoma to about sixty inches in North Carolina. Droughts and heavy rains often do serious damage to crops. These conditions, area, soil, the wide variations of rainfall and temperature have contributed in making the South the most important region for cotton growing in the world.[1]

The cotton plant is attacked by many insects wherever it is grown. In the United States, insects' attack on the plant increased so rapidly that the United States Government, Department of Agriculture, recognizing the menace of these insects to the cotton producers, developed ways and means of destroying them.

BOLL WEEVIL, the most important of all, was first heard of in Mexico about 1862 where its spread became so great that it forced the growing of cotton from the country. We hear of it again in 1895 in Texas evidently coming to the United States from Mexico. In recent years, its spread has become so great that it covers nearly ninety per cent of the cotton area of the country. It thrives only in fairly moist regions so that in some sections it can not survive only for a short time, if at all. In 1921, the damage from the boll weevil was placed at 30.98 per cent of the entire crop. Through government control, a considerable decrease had taken place so that in 1932 the damage was estimated at 15.20 per cent of the entire crop.

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1. Leo D.O'Neil -"Lectures on Economic Geography". July, 1935.

COTTON LEAF WORM is the oldest known cotton pest in the United States. This pest does not pass the entire year in the United States but dies during the winter. New invasions come from Central or South America almost every summer. The amount of damage done depends upon the spread, but the control methods used in late years have given very satisfactory results.

PINK BALL WORM is an old pest of Egypt, but entered the United States about 1917. It has been kept under control.

Cotton Louse, Cotton Flea and many others have all been kept under control.[1a]

Strange as it may seem most of the cotton grown in the United States is produced by native born white labor. Since 1910, where new lands have been under cultivation in Texas and Oklahoma, the amount now produced by white labor is 70 per cent of all the crop produced.[1]

The pickers are paid by the hundred pounds and this varies from time to time in different sections being governed by the supply of labor and the market price of cotton. In recent years, the supply of labor has been plentiful and the average price in the entire cotton belt has been seventy cents per hundred.[2]

There are seldom, if ever, strikes among those employed on the farms as pickers, etc. Unions have not been tolerated in this field.[3]

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1 & 3 - Encyclopedia Britannica, Volume 6, p. 581
2 - Encyclopedia Britannica, Volume 6, p. 66
1a - Encyclopedia Americana, Cotton, Volume 8, p. 76

One of the most important and expensive problems to the cotton growers is transportation because the crop is both heavy and bulky and requires much handling in transporting it from the field to the gin, then to concentration centers and finally to the mills. There are many types of transportation used in the cotton belt. There are the mule-drawn wagons in the interior, good waterways and good highways, numerous railroad lines and direct ocean lines to American and European ports.[1]

Most of the freight is carried from the Southeast to the New England States by the Atlantic Coast Line, Seaboard and Southern railroads. The middle west is supplied from the South by the Louisville and Nashville railroads and the midwest by the Illinois Central and the Frisco railroads. These are all main trunk lines extending from the South and the cotton belt.

Because of the character of cotton ,there are special services adapted to its transportation. It has the transit privilege whereby it is stopped at concentration points, where it can be assorted and assembled into even lots as to staple and grade and then forwarded on a through rate charge from point of origin to destination.[2]

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[1] Encyclopedia Brittannica, Volume 6, p. 541

[2] Moulton. Elmer S.- "Cotton Production" -p. 49

About 1920 there was a general collapse in agriculture which did not improve with general business recovery. For a long time there has been a feeling that the farmer was not used right by the State because of the effect of high tariffs. It was therefore felt that the Government should do something to help the situation and several schemes were proposed. One was the Agricultural Credit Act, the purpose of which was to make loans on agricultural paper on time ranging from six months to three years and to attempt to free the terms on which agricultural paper could be rediscounted by Federal Reserve Banks. This helped some but still was not enough to check the downward movement.

In 1927, the McNary-Haugen bill was proposed. This bill represented an attempt to control the agricultural surplus. It also aimed to maintain prices through dumping in foreign markets, the excess of cotton over domestic requirements. This bill was vetoed by President Coolidge.[1]

The Republican party during 1928, campaigned on relief for the farmer and as a result the Agricultural Marketing Act of 1929 was passed. This act was created to supplement the other systems of financing and the Federal Farm Board was created to administer the act. The Board attempted to integrate the local, regional and national farm marketing systems and to put them in a position to lend to their members on the

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[1] Ford, Robert S.-"Outline of Economics " p.94

basis of a price of 16 cents for middling. Corporations were organized to assist in maintaining the price of cotton. With the government help, cotton did withstand the crash until 1930 when prices declined rapidly, with the government finding itself in the loan business. The Department of Agriculture made loans to many of the planters for seeds and in payment, it was compelled to take some 350,000 bales of cotton. The policy of the seed loans was repeated in 1932 with the result the government acquired another 400,000 bales.[1]

The attempts were unsuccessful due to the tendency to fix the loan value of the commodity at a relatively high level. It attempted from time to time to maintain a minimum price by means of loans. It was lax in its attempt to enforce these prices.[2]

In order to cure this mal-adjustment, the Agricultural Adjustment Act and then the Bankhead Bill were adopted.

The Agricultural Adjustment Act passed in April 1933 provided for the payment of certain rental or benefit payments to the farmers in exchange for a voluntary curtailment of acreage. This resulted in twenty-five per cent or 10,000,000 acres of crops being destroyed. The fund for these payments was to be obtained by the levy of a processing tax upon the first domestic processing of the commodity, whether of domestic production or imported.

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1. Todd, John A.-"Cotton and Cotton Marketing". pp. 214-226
2. Ford, Robert S. -"Outline of Economic" - p. 95

The tax was to be paid initially by the processor but it could be passed on to the consumer.

In spite of all the regulations, acreage was cut but production was increased to and beyond the point of diminishing returns. The carry-over of American cotton was then 13,000,000 bales, the largest in history.[1]

The Bankhead Bill was passed because of the increase in production with the curtailment of acreage. This bill changed the cotton control program from a voluntary basis to one of compulsion. Under this bill, the amount of cotton that a farmer could raise was limited by the levy of a prohibitive tax of 50 per cent of any cotton produced in excess of his alloted quota. Those who refused to participate in the program received no allotments and thus had to pay a tax of 50 per cent on all the cotton they sold. The second part of the act was concerned with making loans on cotton at 12 cents a pound. The bill allowed a crop of approximately 10,000,000 bales with a penalty tax of 5.67 a pound for all cotton ginned in excess of the quota.[2]

On January 6, 1936, the United States Supreme Court found the Agricultural Adjustment Act unconstitutional by a two-thirds majority vote. The Court held that it was an invasion of the rights of the States to regulate their local activities.

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1. "Nation's Business".-June 1934, p.27
2. "Commerce and Finance" -April 10, 1935, p.302

It specifically banned the use of the processing taxes to regulate crop production.[1]

On February 3, 1936, President Roosevelt asked Congress to repeal the Bankhead Compulsory Cotton Control Act with its ginning tax.

His recommendation for prompt repeal was based on "termination" of the A.A.A. program.

On February 5, 1936, the House of Representatives passed the Senate's approved bill repealing the Bankhead Compulsory Cotton Control Act by a vote of 351 to 10. The House of Representatives added an amendment to release from tax payments some 25,000 bales of cotton on which taxes were levied under the Bankhead Compulsory Cotton Control Act at time of ginning, but not paid while the cotton had been held for marketing of farmers.

On February 6, 1936, Congress completed its approval of the repeal of the Bankhead Compulsory Cotton Control Act.[2]

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1. "The New York Times" - January 7, 1936, p.1
2. "Boston Evening Transcript" -February 3,5,6, 1936-pp.1-11

MANUFACTURING

North and South

The cotton industry led all other manufacturers in amount of capital established, number of persons employed and in the value of products. It was located in New England especially in New Bedford where the wealth which had been accumulated in the whale fisheries became available for the building of cotton mills. New England had in addition plenty of water power, a market and the labor supply. She was able to obtain a saving in lower rates for coal and climatic conditions were good.[1]

By the invention of the ring spindle in 1831 which can be operated by less skilled operatives and takes less room, and by the invention of the Northrop battery loom in 1894 which saves running time, can be operated by women, takes less skill and permits great increase in the number of looms per operative, the north has helped the spread of the cotton industry to Japan and to the southern states of the United States where with their untrained labor supplies it would have been greatly retarded.

Since the World War, one and one half million spindles have been shipped from New England and set up in the southern states. In most cases, these shipments have been accompanied by highly skilled workers to instruct the natives.[2]

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1. Copeland, M.T.,"The Cotton Manufacturing Industry in the United States" -p.30
2. Encyclopedia of Social Sciences, Volume 14, p.585

The freed slave movement has helped the south in the development of the cotton industry because all the available capital and labor were employed in agriculture. The capital was needed to purchase slaves. At no time was there a surplus of capital seeking investment and a supply of labor was not available for manufacturing because the negro labor was too ignorant, too clumsy, too unreliable to be employed in mills equipped with expensive machinery.[1]

Northern interests realizing the advantages in this new cheap labor, low taxes, and laxer labor legislation have played a large part in the erection of textile mills in the southern states. The movement of textile industry to the south gained from 1870 to 1880 and by 1925 the south exceeded the north in spindleage, having already exceeded it in yardage. Since 1920 the south gained over 9,000,000 spindles while the other states lost over 8,000,000.[2]

As a result of the movement South, the cotton-growing states make over half of all the cotton goods. They employ over 60 per cent of the workers in the industry. A great amount of northern capital is in southern mills. It is estimated that between 1923 and 1927 about $100,000,000 of New England capital migrated southward. In 1927 it was estimated that 83 per cent of the spindles in southern states

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[1] Copeland, M. T., "The Cotton Manufacturing Industry in the United States"- p.34

[2] Encyclopedia of Social Sciences, Volume 14, p.586

were controlled by southern capital, 15 per cent by northern capital and 2 per cent by western capital.[1]

The reasons offered for the movement of the cotton industry southward in most cases are grossly exaggerated, as for the savings in transportation charges on raw material most of the southern mills are not located in the cotton growing regions. Inter-state freight charges are high, often 50 per cent of the rate to New England. Much of the finished product is consumed in the North and freight charges must be met when the goods are shipped to market. The cheap power theory does not play any part as the power cost per pound of fabric is not a matter of great consequence in either the North or the South. Many New England cities have taxed mill property heavily, both in valuation figures and tax rates. The South does offer this advantage with lower valuation figures and tax rates and in some cases exemption from taxation for a period of time. This situation will not continue because the southern cities are growing and are going to need money for improvements. The mills will be looked upon as a source of great revenue. The real attractions to mill owners are the lax laws which permit long hours of work and relatively low wages.[2]

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1. Blue Book of Southern Progress, pp. 143-145
2. Robert W. Dunn, "Labor and Textile" pp. 44-49

Labor

In the early years of the textile industry, the large groups of workers were highly skilled. They were made up of the native-born population and the fathers taught their jobs to their sons and prided themselves on their skill. In some parts of New England, one can still see remnants of this class. In the south, types of this class scarcely exist except in a few fine good mills.

In their craving for great profits, the textile capitalists have done everything to reduce cost especially labor cost. They have introduced automatic machinery which require little or no skill thereby transforming the textile workers into semi-skilled and unskilled laborers. This method has filled our mills with immigrant labor which in most cases is considered a menace to the country.[1]

In the North, the employers play off the various nationalities against one another much as they use the Negro workers against the white workers in the South. There are whole textile communities in New England and the Middle Atlantic States where English is seldom heard. The reason for this as one New England mill superintendent replied was :"There are 17 nationalities in my mill and the people of no one nationality can understand the language of the others and, therefore, they can never get together enough to make a strike."[2]

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1. Copeland, M.T., "The Cotton Textile Industry of the United States". pp. 121-122
2. Robert W. Dunn, "Labor and Textile" - p. 102

In the southern states there is not the problem of foreign-born workers as they number about 1 per cent or less of all the cotton textile workers. This is not the fault of the manufacturers because in 1906, South Carolina, at the instigation of the manufacturers, set up a special commission to import foreign labor. A North German Lloyd steamship actually made two voyages to Charleston bringing several hundred Belgians, Austrians and Galicians. This was not continued because the foreigners wander North, where wages were higher. In 1929 the Houston Texas, Chamber of Commerce sent a bulletin to every textile manufacturer in New England reading, in part, "Unorganizable Mexican labor in inexhaustible numbers can be secured in Texas for new textile mills." Mills in Texas cities employ Mexican labor almost exclusively.[1]

The supply of labor for the southern mills was obtained from two classes, the mountaineers and the tenant farmers. The industry as a whole has always been a family industry. The mill owner determines their destiny, by his system he tries to reduce them to utter helplessness and dependence. The Manville Jenckes people did insist that there must be at least three workers in the family before they will rent a house to the worker.[2]

The United States has about 1400 cotton manufacturing establishments extending over the entire country, with only

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1. Dunn, W. Robert," Labor and Textile " -p.103
2. Dunn, W. Robert, " Labor and Textile" -p.105

four listed on the New York Cotton Exchange. It is highly individualist and has not followed the efforts of consolidation but has remained composed of many small units. About 4,500,000 growers, mill workers and others were dependent upon textiles. Of these, about 500,000 were cotton workers.[1] In 1932, the number employed in textile work was 8 per cent below the average for 1931. Under the Cotton Textile Code, employment increased but it did not hold this gain and there is a feeling that it has declined to the old 1932 level.[2]

Organizations

The textile capitalists are well organized to protect their interests, yet they oppose every move of the workers to organize. The outstanding associations in the cotton industry are the National Association of Cotton Manufacturers, and the American Cotton Manufacturers' Association. The former is the oldest and is made up of practically all cotton mills in New England. It holds "textile forums" at which executives, mill agents, and superintendents discuss "employee relations" methods of employment and speed-up technique. The latter is confined primarily to southern mills. It has an Industrial Relations Committee which handles the "labor end" of its work. It stands for the 100 per cent anti-union "open shop". They cooperate in the Cotton Textile Institution. So far as can be learned, it has not directly entered the political or legislative field.[3]

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[1] Dunn, Robert W. , "Labor and Textiles" - p.37
[2] Galloway, George B.,"Industrial Planning Under Codes"-p.129
[3] Dunn, Robert W., "Labor and Textile" - p. 156

Long before the development of any national union there was an organized local group known as the National Cotton Mule Spinners Association and had the reputation of being the strongest but their demands became so great that ring spun yarn was substituted for mule spun yarn. In 1891, the first efforts to form a nation-wide union for workers, chiefly in the cotton industry, was started in Lowell. The result was the United Textile Workers of America in 1901, fostered by the American Federation of Labor. Up to the present time, the United Textile Workers have formed locals in practically every cotton country. The union claims to have issued some 650,000 membership cards. The war was the most favorable period for the union; at this time, it reported members amounted to 105,000.[1] In 1933, the members had declined to 20,000.[2]

In the southern states, the task of organization was much harder because here a sort of political feudalism and highly effective system of blacklisting made it easy to supress organizers whenever they were started by forcing union men out of the state to find work. But with the growing industrialization and the aid of outside agencies, the southern workers were organized in the United Textile Workers of America about 1929 or 1930. At this time, the textile workers were paid $10 for a work week of 60 hours.[3]

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1. Dunn, Robert W., "Labor and Textiles" -p.181
2. Encyclopedia of Social Sciences - Volume 14, p. 594
3. Encyclopedia of Social Sciences - Volume 14, p. 593

The American unions were dedicated to straight labor policy, involving strikes for the recognition of organized labor, collective bargaining over wages, hours and working conditions. The movement restricted its activities to the promotion of pure and simple trade unions.[1]

After the World War, the old hostility of the American employer to the organization of labor returned. The whole industrial relation in this country has been a conflict between capital and labor. There has been no direct radical change in relations to labor but many employers have adopted direct and more constructive policies, such as centralized ownership, expansion in the size of factory units, more scientific management and the replacement of the old type of plant manager and foreman with the more trained and educated. All of these have their effect on labor unions.[2]

The trade unions have won the right to organize and to strike in their interest of social reform, but with the unfavorable decisions and the use of drastic injunctions by the local and federal courts that have determined the result of the majority of struggles between capital and labor, it still remains to be seen just what rights labor has. In the textile areas of the south, the attitude of some local authorities has put a stop to union organization.[3]

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1 & 3 The United States Report of the Hoover's Research Committee- "Recent Social Trends" - pp. 835-836

2 "Recent Social Trends" - p. 844

During recent years, we have had state regulation limited to factory and inspection laws, control of child labor, regulation of hours of work, fixing of wages and the manner and time of wage payments. In more recent years, all but four states, Florida, Mississippi, South Carolina and Arkansas, have adopted workmen's compensation or industrial accident insurance. Since the wide spread of unemployment, many states have created unemployment commissions to study plans of insurance against unemployment.[1]

In a survey made by the United States Department of Labor, in the State of South Carolina for the year 1932 , it was found that about two-fifths of the employment in cotton mills were women. Out of 132 mills' survey, 98 were found working night shifts, some full operation, others part operation, and that there had been an increase in the employment of women for night work. This survey showed that twice as many cotton mills were employing women at night and that four times as many women were so employed than in 1922. It further showed that 33 per cent of those employed worked on night shifts. It also found that the daily hours were as long as were permitted by law, 10 hours a day or 55 hours a week.[2]

Wages varied but the women who worked the factory hours had median earnings of $10.60 a week, while those who worked each day the plant was in operation but whose actual hours

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[1] The United States Report of the Hoover's Research Committee- "Recent Social Trends"- p.850

[2] United States Department of Labor Bulletin, 111, pp. 9-11

were not recorded had median earnings of $8.75. It was also found that during the past few years there has been a change in method of payment, either from straight piece to task, or from individual piece to group piece. This method is taken as a means of making production more efficient and lowering cost.

They have what they call learners, those that have less than six months experience and the median earnings of this class regardless of hours worked was $6.95.[1]

In the north the percentage of women was less with no women reported on night work. Hours were limited to 54 and 49 a week. Almost all worked full time each day and the median earnings was $12. and not higher than $20. The highest median for a week of full-time worker was in the carding department $ 14.75, the lowest was in the cloth department $11.40.

In the past there has been a tendency to pay by piece or some form of production method. In cotton mills this is not followed to its full extent because a little more than one-half of the women were paid according to the amount produced. The deciding factor, whether payment should be according to time worked or to amount of work produced, was in most cases not the job but the custom of the mill.[2]

During the years 1933-34 the hours, wages and general business conditions were regulated by the National Industrial Recovery Act.

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[1] United States Department of Labor, Bulletin #111-pp13-16
[2] Ibid PP.28-31

National Industrial Recovery Act

The Cotton Textile Institute in 1932 had sponsored an educational movement to establish on a voluntary basis a maximum work-week for the day shift of 55 hours and 50 hours for night shift. During this year, the movement was observed by approximately 82 per cent of the spindles in the industry. The Institute because of its success in hour reduction tried to bring about the discontinuance of night work of women and of minors under 16 years of age. This was observed by 88 per cent of the industry. The Institute also called the attention of mill owners to the excess capacity and gave numerous recommendations to a balancing of production with demand.

At this time, the Government passed the National Industrial Recovery Act to become effective August 1, 1933. It was to fix the maximum work-week at 40 hours and to permit not more than two shifts of 40 hours to be worked on productive machinery. This put a stop to night work after 10 or 11 o'clock. It also prohibited employment at any time of minors under 16 years of age.[1] On August 1, 1933, a federal tax also became effective. It was levied upon the processing of raw cotton, embracing all manufactured goods in inventory as of August 1, and all raw cotton processed after that date. The tax amounted to 4.2 cents per pound on raw cotton put into process. This brought great demand from buyers who wanted to secure goods that carried neither the processing tax nor the higher costs of production under the code. As a result, the production for the

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[1] Galloway, George B.-"Industrial Planning Under Codes"-Article by George A.Sloan,Chairman,Cotton Textile Code Authority - pp. 118-119

months preceding the effectiveness of the act reached an all time record of 696,000 bales and inventories were the lowest in eight years.

Under the code, working shifts were reduced from 54 hours to a maximum of 40 hours per week. The additional number employed during the boom months preceding the effectiveness of the code were continued in employment, but there was a great decline in demand for goods. Between August 1933 and May 1934, employment amounted to 456,000. The result of the 40 hour week can be seen in contrast to March,1933 prior to the code 312,000 workers were employed and processed 494,000 bales while in November,1933 after the code 429,000 persons employed processed only 475,000 bales. In July, 1934 the processing of cotton goods averaged 25 per cent below March, 1933 while the number employed were 100,000 more.

The code set minimum wages but it required the preservation of the previous differentials between occupational groups receiving more than the minimum and it also provided that workers should not receive less for a shorter week than they had earned for the longer week. The United States Bureau of Labor statistics indicates that the payroll of cotton mills during the year ending July 31, 1934 increased $100,000,000 and the cotton processed decreased seven per cent.[1]

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[1] Galloway,George A.-"Industrial Planning Under Codes"-Article by George A.Sloan,Chairman,Cotton Textile Code Authority.-pp. 121-122

Section 7a of the National Industrial Recovery Act reads as follows:

> "(a) Every code of fair competition, agreement and license approved, prescribed or issued under this title shall contain the following conditions;
>
> (1) That employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection;
>
> (2) that no employee and no one seeking employment shall be required as a condition of employment to join any company union or refrain from joining, organizing, or assisting a labor organization of his own choosing;
>
> (3) that employers shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment, approved or prescribed by the President.[1]

Many executives felt that the purchasing power of the public would not enable it to buy at the higher prices induced by the code. For the first few months, the industry was engaged in replenishing its inventory and did not realize that the purchasing power of the general public was greatly reduced.

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[1] Code of Fair Competition for the Cotton Textile Industry.

Members of the Cotton Code Authority in their attempt to stabilize the cotton industry took into consideration price fixing and methods of preventing sales being made below cost of production. The majority of the members favored emergency limitations of the hours of operation instead of direct price control. It was pointed out that the products produced by cotton manufacturers were not readily susceptible to price regulations.

According to George A. Sloan, Chairman, Cotton Textile Code Authority, "There exist wide differences among cotton mills as to the cost of performing certain operations. There are so-called low-cost mills, high-cost mills, and mills whose costs fall somewhere between the high and the low, and no plan seemed feasible that could harmonize these differences. If mills were forbidden to sell below their own cost of production, high-cost mills feared that they would be driven out of business as occasions regularly arise when the only way that their position in the trade can be maintained is by accepting business at prices below cost. From the standpoint of the low-cost mills, on the other hand, the establishment of minimum prices raised the question of too high a price level, which would yield more than a normal profit. Low-cost mills therefore found it difficult to envisage a regime that required their adherence to a minimum price substantially above their own costs and yielding more than a normal profit in order that

higher-cost mills could obtain some of the business. The serious difficulty of enforcing price provisions also presented itself in these deliberations. It was realized that it would be difficult to supervise the myriads of transactions that occur daily in cotton goods, should there be an intent to depart from the price provisions of code, means of so doing without detection are not difficult to conceive. A cloud of suspicion as to deviations from price regulations, it was felt, would induce laxity in the observance of other provisions of the code, and ultimately cause the entire code to break down."[1] On these contingencies, the Code Authority hesitated to attempt stabilization by means of price control.

The Cotton Code Authority also gave careful study to the method of preserving an equilibrium through inventory control. This procedure was based on the principle that no mill should accumulate more than a stated quantity of goods; that after a mill had reached its maximum, it should reduce or suspend production. It was pointed out that the weakness in that plan lay in the invitation it presented to a mill to keep itself sold ahead irrespective of price, in order to avoid the accumulation of unsold stocks. In view of the excess capacity for production in the industry, notwithstanding the machine hours limitation in the code, the urge to push goods on the

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1. Galloway, George B.,"Industrial Planning Under Codes"-Article by George A.Sloan,Chairman,Cotton Textile Code Authority-p.123

market at seasons of restricted demand in order to avoid curtailment or suspension would, it was feared, induce a return to the ruinous competition of the past when only the strongest could avoid bankruptcy. It was, therefore, concluded that any scheme for inventory control separate and distinct from price control would not work successfully.[1]

The plan that was finally adapted by the Code Authority as more workable for the cotton manufacturers was coordination of the output of cotton goods with public demands.

The Code Authority believe that it was better for business to make a reasonable profit so that it could return an increment to invested capital and avoid its waste by below cost selling.

With all the regulations under the code, the industry faced a decline. The Code Authority recommended that mills limit their production to 75 per cent of the maximum hours otherwise permitted, thus machine hours were to be reduced to 60 hours instead of 80 hours as a means to avoid unemployment. Some good did result, inventories decreased and production was about equal to demand, but in the summer of 1934 prices continued downward and inventories continued to increase. The relatively high prices for cotton goods, due to code provisions, processing taxes and increasing prices in raw cotton, were considered responsible for the decrease in consumers' demand.

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1. Galloway, George B., "Industrial Planning Under Codes"-Article by George A. Sloan, Chairman, Cotton Textile Code Authority, -p.124

The situation became critical in 1935, consumption of goods for the first quarter was 22 per cent under that of the corresponding period in 1934. Inventories increased with no markets even at prices well below cost. Many mills closed down forcing thousands out of work and other mills both in the north and south faced suspensions. The result of this was that the code authority asked more reduction in machine hours to not more than 25 per cent in the maximum hours of operation prescribed in the code.

By the overexpansion of production, there has been much irregularity of employment and in some cases for a long time creating serious hardships in the cotton mill communities.

The limitation of machine-hours was to benefit labor; by the spreading of employment in periods of normal buying so that the excessive peaks of production will be avoided and the insurance of some measure of employment during slack seasons on the part of as many workers as possible, as against the entire loss of employment on the part of some and the full employment on the part of others.[1]

From the standpoint of all concerned, the Cotton Textile Code Authority held that adjustment of production to demand was the best for public interest. They regarded the code as the keystone of the first code to enable the industry to support the reduction in hours and to increase the wage rates.

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1. Galloway, George B., "Industrial Planning Under Codes"-pp.125 to 129.

In May 1935, the United States Supreme Court found the National Industrial Recovery Act unconstitutional by a five to four decision. All judges held that most of the provisions of the Act were invalid under the Constitution. The Supreme Court further decided that Congress had no constitutional power to delegate to the President authority to impose codes upon private business. The court also held that no group in any industry may frame a code for itself through which the attempt is made to give the force of law. The Court further decided that the Federal Government has no constitutional right to go into the States and fix hours and wages in industries which are not clearly and exclusively engaged in interstate commerce.[1]

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1. "The New York Times" - May 28, 1935

Spindles

In the United States about 688 of the concerns that operate spindles are small, none over 30,000 spindles. There are about 300 small cotton mills with no spindles only looms. During the period between 1925 and 1935, the number of spindles decreased from 37,900,000 to 30,092,758, this was a decrease of 849,500 from the number for 1934. The total number of spindles in operation during the year 1935 were 26,700,946 or 1,041,516 less than the number for the preceding year.[1]

In the total number of spindles, North Carolina exceeds all other states having 6,129,376 or 20.4 per cent of the total for the entire United States in 1935; South Carolina second with 5,839,968 and Massachusetts third with 5,375,124. Massachusetts reported a loss of 332,776.[2]

Transportation

The transportation system in the United States is very good. To the locating of a cotton mill the transportation cost is a minor item when care is taken to select the most economical route. The decline in the textile industry has affected the railroads to some extent. Mr. M.S.Sloan, president of the Missouri, Kansas and Texas Railroad, remarked that during the 1934-35 season the receipts of his line for handling cotton had fallen below $1,000,000, the revenue of 1933. The Rock Island reported a 70 per cent drop.[3]

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1 & 2. Galloway,G.B.,"Industrial Planning Under Codes"-p.120
United States Dept. of Commerce-"Cotton Production and Distribution" Bulletin #172-p.22

3. Angly,Edward-"Old King Cotton Topples".-p.67

MARKETING

Cotton Preparation

Cotton bolls do not open all at once, the picking lasts for several months in the fall. Usually from August to December and in some places as late as January. Cotton rots if left on the plant, picking is begun as soon as the plant begins to open. The process is not complicated but requires a great deal of physical effort. The picker is paid per hundred pounds of seeds picked per day.

For many years numerous efforts have been made to build a servicable machine, for picking cotton that would take all or nearly all the cotton from the ripe bolls without injuring the green plants or gather too much rubbish.

In 1934 John and Mack Rust experienced with an harvestor, an invention of theirs',and found it to be satisfactory. This mechanical picker will do the work of 50 to 100 men. In seven and a half hours it gathered as much cotton as a diligent hand-picker gathers in an eleven-week season. If put on the market in the same manner as other inventions,it would mean,in the share-cropped country,that 75 per cent of the labor population would be thrown out of employment. Planters have declared that with such machines they could grow cotton at a profit even if the price dropped below 5 cents per pound.

The Federal and State aid is asked to work out a program for painlessly absorbing the picker into the Souths' economy. The Rust brothers do not want to sell the harvesters but to lease them to planters who promise to maintain minimum wage.[1]

At the gin the lint is separated from the cottonseeds, cleaned and condensed into layers preparatory to being baled.

Baling and wrapping is done for economic handling and for the protection of the cotton. Bales weigh approximately 500 pounds and are 54 X 27 X 45 inches in dimension. The bales are wrapped in jute bagging that does not cover sides and ends of bales, they are tied with steel bands and are stencilled with the farmer's initials and the gin weight which varies from 300 to 700 pounds. To reduce the size of the bales to be shipped or stored there is another process called compressing.[2]

The loosely packed gin bales brought to the country markets by the growers have to be compressed to about 1/2 or 1/3 of their size or compressed to a density of 30 pounds per cubic foot.[3] The bale is then labeled with a tag bearing the name of the point of origin. In recent years standardization of cotton has been encouraged, uniformity in package regarding weight, size, shape and covering. This uniformity is necessary because the market sells for future delivery and sells by description. The adoption of the method eliminates high inspection costs.[4]

1."Times" April 22,1935 ,p-36 ; March 23,1936,p-60
2 & 3- Cox,A.B.-Services on Cotton Marketing -U. S. Bulletin #1445
pp.5-4

4.Ibid p.7

In selling on description the grading and classing are very important as there is a great difference in the price of the various grades. "The United States Standard Act, March 4, 1923, provided that thereafter it was unlawful to describe American cotton for grade or staple in interstate or foreign trade by a standard description otherwise than on the basis of the official cotton standards of the United States." Every three years, in consultation with classing experts of other cotton markets of the world, the department makes up a number of copies of the Standards.[1]

The established grades as recognized by the United States Government:[2]

Good ordinary
Strict good ordinary
Low middling
Strict low middling
Middling
Strict middling
Good middling
Strict good middling
Middling fair

The difference in the different grades is mainly in the degree in which the various qualities appear.

Good ordinary- contains a considerable quantity of leaf particles, and it may have also a sprinkling of motes, seed fragments, and gin cuts. This grade is considered white cotton, but it has some tinge or stain and is usually more or less smoky and discolored.

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1. Garside, A.H.-"Cotton goes to Market "-pp.55 - 59
2. Pratt, E.E.- "International Trade in Staple Commodities"-p.15

Strict good ordinary- differs from the preceding grade chiefly in having a lesser amount of the imperfections named.

Low middling- this cotton appears to be considerably whiter than the first grade mentioned, but there are indications of tinge and stains in spots. There is also considerable quantity of leaf and motes, and perhaps some gin cuts and neps.

Strict low middling- this is intermediate between Middling and Low middling in characteristics.

Middling- this is white cotton and nearly free from gin cuts and neps,but it contains some pieces of cotton seed and a medium amount of fairly large pieces of leaf. Middling cotton may have the color of the higher grades,but the leaf particles and other impurities it contains hold it to its grade. Middling is the basic grade both in respect to market price and to the measuring of other grades.

Strict middling- is one grade better than middling,but it is difficult to say just wherein it is better. It is a slightly better looking cotton, and has better color and less leaf and trash.

Good middling- has a creamy-white or white color, is free from neps and gin cuts,and contains only a few foreign particles and but little leaf trash. Very little of the commercial crop grades higher than Good middling unless special effort is made in picking.

Strict good middling- has a bright creamy or white color,has no neps or gin cuts or broken seeds, and has fewer pieces of leaf.

Middling fair- is the highest grade represented in the Universal Standards and it is rare in commercial trade. The cotton is of a bright creamy or white color,fluffy,well ginned and very little imperfections.

The cotton is classed as white but designated as "off color", "spotted," "tinged," or "stained." The Department of Agriculture recognizes seven groups of Upland cotton on basis of color. White,Blue-stained,Gray, Yellow-stained,Spotted,Yellow-tinged,and Light-stained. Minor color variations occur in each of these divisions. None of the discolored cottons are graded higher than Good middling and none lower than Low middling.

Sea Island cotton is considerably different from Upland cotton and so requires a different system of grading. It has a very long,fine,silky staple. It resembles that of Upland in color. These grades are designated numerically in order from highest to lowest as Nos. 1,2,3,4,5 and 6.

American-Egyptian cotton is different from Upland and also somewhat different from Sea Island. It contains more crushed seeds and is darker in color. The highest grades are of a creamy color,while the lower tend to be darker. The grades are designated by the numbers 1 to 5 inclusive, the lowest number being the best grade.

Staple- the length of staple is a matter of considerable importance. Less than 20 per cent of cotton produced in the United States is long-staple cotton on which premium is paid. Cotton with a staple of 1 1/16 inches in length or less is generally considered short-staple cotton. Staple 1 1/8 inches in length or longer is called long-staple cotton.

Upland cotton staple lengths run from 3/4 to 1 1/2 inches. American-Egyptian staple lengths run from 1 1/2 to 1 3/4 inches.

Character of staple is a matter of much importance to spinners and manufacturers of cotton goods but it is not at all understood by cotton growers. Character has to do with the strength, body, uniformity, drag, elasticity, and other qualities of cotton fibers. Most of these are rather intangible and hard to measure. There are no standards with which to make comparison.[1]

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[1] Brown, Harry Bates-" Cotton "pp. 357 to 366

Grades and Colors of the Universal Standards for American Upland Cotton *

Blue-stained	Gray	Standards for grades of Upland cottons white	Spotted	Yellow-tinged	Light-stained	Yellow-stained
		1 or M.F.				
		2 or S.G.M.		2 T.		
	3 G.	3 or G.M.	3 Sp.	3 T.	3 L.S.	3 S.
3 B.	4 G.	4 or S.M.	4 Sp.	4 T.	4 L.S.	4 S.
4 B.	5 G.	5 or M.	5 Sp.	5 T.	5 L.S.	5 S.
5 B.		6 or S.L.M.	6 Sp.	6 T.		
		7 or L.M.	7 Sp.	7 T.		
		8 or S.G.O				
		9 or G.O.				

The grades shown above the continuous line are deliverable on future contracts made in accordance with Section 5 of United States Cotton Futures Act. Those below the line are untenderable on such contracts.

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* Brown, Harry Bates- "Cotton" p.354

Other factors that play a part in the marketing of cotton are:

Storage: Many spinners do not wish their cotton as soon as it is harvested, therefore the grower or seller has to store it until the spinners do wish to have it shipped to the mills.

Financing: The carrying of such cotton in storage until the spinners require it means the investment of a large sum of money which must come from the holder's capital or from a bank loan.

Insurance: The amount of insurance carried on cotton must be enough to give it full protection at all times.

Transportation: The selection of the most economical routes is a matter of great importance in shipping a large quantity a long distance.

Market risks: If the cotton is unsold for some time there is the possibility of loss due to price changes.[1]

During the growing season, the farmer must get credit in order to live until his crop is harvested, and this he generally gets from the country merchant. When the cotton crop is harvested, the farmer will bring it to the country merchant who in turn will purchase it from the farmer at current prices or sometimes higher, taking the amount owed by the farmer from the proceeds and giving him the balance. This is about the only means that the country merchant has of getting payment for his goods.[2]

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1. Garside, A.H., "Cotton Goes to Market" -p.91
2. Pratt, E.E., "International Trade in Staple Commodities"-p.29

In speaking of the markets for cotton, we must consider two kinds.

The Spot Market is made up on the common variety markets, the main function of which is to distribute cotton from the producer to consumer. It consists of the country markets, central markets and mill markets.

The Futures Market makes possible the transfer of price risks from handlers of cotton who are unable or unwilling to carry them to those who can and will assume them.

The Country Market is generally located where the country merchant is; here the growers bring their cotton and they sell it to the local dealers or to any other buyer.

The Central Market is made up of larger merchants who buy in the country markets and who sell to spinners in this market and to importers and spinners abroad.

The Mill Market is similar to the central market, only the mills have offices where spinners buy cotton, chiefly from agents and brokers representing shippers.[1]

Because of the size of the cotton bale and the inconvenience of having it around, cotton sellers have adopted plans which they call "Selling by Description;" "Selling Equal to Sample" and "Selling on Actual Sample".

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[1] Garside, A.H.,"Cotton Goes to Market"-pp.96-102

Selling by Description , the seller names and describes in the contract the grade of cotton the buyer is to receive. The measures of standardization as passed by the Government are used in export services.

Selling by Samples, the sample is furnished and the order when received should be like sample. Because of buyers receiving cotton not like the original sample, the method of Selling on Actual Sample was adopted. This consisted in furnishing samples drawn from the actual bales which the merchants will sell to the buyer.[1]

In nearly every industry, we have what is called a selling agent or a commission merchant. In the cotton textile industry, it is not unusual for competing mills to have the same selling agent. Some of the larger merchants may carry as many as 50 or 75 selling accounts. His compensation is in the form of a percentage of his sales. In his case, volume means more than price. Some commission merchants make loans to the mills, these are based on sales already made or upon goods in stock. It frequently happens that such loans cannot be liquidated and the mill has to be taken over by the merchant.

In the cotton textile market, there is much buying of cotton by the method referred to as "buying on call". The cotton is not bought at a fixed price, but at a price to be

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[1] W.H.Hubbard,"Cotton and the Cotton Market" -p.209

determined later by the action of the market at such time as the buyer wishes to exercise his option of "fixing" the price. This arrangement enables the buyer to ask for delivery of the cotton in such quantities and at such times as meets his wishes yet it permits him to delay fixing the price.[1]

In recent years, heavy losses have been felt by the entire cotton textile industry but principally by the growers. In many sections of the cotton belt, credit is extended only to growers in a relatively strong financial position. As a means of relieving the credit situation, the Government has become a very important source of production credit. In many parts of the cotton belt, it is estimated that fully half of the loans obtained by growers came from the Government.

In our trade with other countries, we have what are called the shippers. These shippers buy cotton in country markets paying by sight drafts. The shipper's country buyer, on purchasing a lot of cotton, draws a sight draft on his head office in favor of the seller, and the seller endorses it and deposits it in his local bank together with documents giving title to the cotton. The local bank forwards the draft and documents to its correspondent bank in the city where the shipper's head office is located, and the bank presents the draft at the shipper's office for payment. The shipper either gives the

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1. Murchison, C.T., "King Cotton is Sick" -p.86

bank his check to cover,or,if he has an account the bank will debit his account.[1]

In selling cotton to domestic mills,shippers generally receive payment through sight drafts drawn on the buyers.

The greatest portion of cotton exported from this country is sold on terms known as the "letter of credit" under which the shipper draws on a foreign bank against a credit in his favor,opened under an arrangement made by the foreign buyer with his foreign bank,this makes it possible for the shipper to receive payment sooner by discounting the draft at the bank.

Practically all of our exports to England and other countries today are carried out on the "letter of credit" basis.

Because of the practice in our retail trade to place orders in the Spring for Fall delivery mills must make purchases of raw material months ahead of time and therefore taking considerable risk. In order to reduce this risk the merchant must engage in contracts for future delivery where he will buy and sell futures on the Exchanges of New York,Liverpool and any of the other ten. This practice is commonly called "hedging ."

Hedging is really a trade insurance . If cotton is bought by a mill for late delivery,the shipper must protect himself

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[1] Garside,A.H.,"Cotton Goes to Market"-p197

against loss due to changes in prices. When he buys to fulfill the contract, he might be required to pay more for the cotton. He will insure himself against this loss by purchasing futures, contracts against this sale, at the time the sale was made. If the price of cotton advances, the return he is to receive on his futures will also advance and even if he is obliged to pay a high price at the time of delivery, he will be able to make a profit on the future purchases. This process is also used if a merchant has purchased cotton which he cannot dispose of at the time; he will sell futures against that stock.[1]

In considering the second branch, the marketing of textile products, we find the retail stores pooling their purchases through the device of so-called buying syndicates. In earlier years, this started with the smaller retailer but in recent years the department stores have joined this syndicate method of buying. The garment manufacturers follow the bargain seeking method in making their purchases and from the large size purchases made they are able to play the commission merchants against each other for the minimum prices.[2]

With conditions such as these, it would seem to be that regulations on the volume of production or stabilized costs must take place before any radical change can take place.

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1. A.M.Agelasto,"The Cotton Situation" -p. 385
2. Murchison, C.T., "King Cotton is Sick"- pp.66-67

FOREIGN TRADE

Exports

Exports declined sharply in 1934 and 1935 to all countries. Exports to Japan held up the best. This decline of American exports and replacement abroad by foreign cotton is due to the 12 cent loan to domestic producers which has put American prices out of line with foreign cotton prices. The exports are likely to continue to suffer, also domestic consumption, unless the Government's policy is changed.

The present trend shows that the Government has the market cornered and the future depends entirely on its policy.[1]

American cotton declined to such an extent that only 4,798,539 bales of American cotton were shipped abroad, which is less by 6,127,075 than that shipped in 1927. In proportion to the available supply, this is the smallest volume of exports in the history of American cotton growing.[2]

During the 1935 period, mills outside the United States used 1,100,000 bales less of American cotton than a year earlier, but only 1,000,000 bales more of other growths, their consumption of all cotton thus showing about a ten per cent decrease.[3]

The story of the loss of our cotton exports is due to the shift in foreign demand from American to other markets where prices are more favorable. Together with the decline in exports, domestic consumption has declined to about 340,386 bales below 1934.[4]

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1. The Annalist - July 19, 1935-p.112
2. U.S.Dept. of Commerce-"Cotton Production and Distribution"
   Bulletin #172-p.38-25
3. Survey of Current Business, Article by Edward T. Pickard,
   June, 1935-p.16

Imports

The total quantity of cotton imported into the United States during the year 1935, amounted to 107,031 bales of 500 pounds each. The imports of cotton from Egypt and Peru have declined due to the import duty of 7 cents per pound on long-staple cotton, effective in 1930. Most of the cotton imported to the United States is Egyptian, which is used for the manufacture of thread and automobile tires. The Indian cotton is of a lower grade than American and is used in this country in the manufacture of blankets. Twenty-four thousand nine hundred three bales of this cotton were imported during 1935.[1]

During the years 1933 and 1934, the United States imported from Japan cotton textile amounting to yens 1,299,000 and 1,756,000.[2]

Imports from Great Britain were cotton piece goods, (1934) 486,646 million yards and (1933) 544,642 million yards; cotton manufactures except yarns and piece goods (1934) 343,958 million yards and (1933) 400,195 million yards.[3]

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1. U.S.Dept. of Commerce -"Cotton Production and Distribution", Bulletin,#172-p.38
2. U.S.Dept. of Commerce-"Annual Trade and Economic Report of Japan", January 21,1935-p.112
3. Meekins,Lynn W., Commercial Attache,London-"Economic Conditions in the United Kingdom"1934-p.173

INDIA

Historical Background

Ancient India is not only the second largest cotton growing country today but she is the oldest cotton producing area of the world. India is called, the birth place of the cotton industry but the exact date of its beginning is not known. It is the first country recorded in history as an exporter of cotton cloths.[1] Before the nineteenth century, the production of cotton goods was a practical monopoly of India including the spinning and weaving which was all done by hand. For a long time, India cloths were a luxury and they were imported into all Europe, the East and later when America was discovered into the United States. They were wonderfully delicate fabrics and they commanded high prices. The 15th or 16th century with its wars and plunders greatly hampered the Indian industrialists but about the 18th century, with a new reign, the industries were soon revived. The economic institutions in these days were domestic institutions. In these institutions, India was able to command the markets for over 2000 years. Production was on a small scale and there were no intermediary merchants, but as the markets for these goods widened, and, because of greater specialization, there was need of more capital. Thus the commercial middleman or merchant prince came into being, because he could furnish the capital and could collect the

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1. J.A.Scherer-"Cotton as a World Power" p-6

craftmen in a workshop together where he furnished the raw material for them to work with.[1]

In 1600, the East Indian Company was formed because the merchants of Europe were lured by the trade and prosperity of India. English factories were established because the English merchants realized that the fabrics of India were very profitable articles and wanted them in Europe. Raw cotton became of great demand in England and a regular trade in yarn was developed.[2] With the development of manufacturing in England, India cotton cloths became a story of the past. India spun, wove and printed by hand the cotton cloth for a long time after the wonderful invention in cotton manufacturing machinery.[3] Indian weavers fearing that their trade would suffer demanded the English to choose between cloth or yarn. This demand caused a depression in India which lasted 30 years.

About 1675, the demand for Indian fabrics was again felt in Europe. Factories were built in Bombay and on other water locations mostly by the English. This caused unrest among the natives. By the end of the 17th century, there was such a great quantity of India goods in England that the woolen merchants became alarmed and Parliament passed an act in 1721 absolutely prohibiting the employment of any calicoes in England. During the period 1794-1824, heavy tariffs were placed on India goods by Great Britain. It was not until 1823 that the tariff was lowered a little but not until after the English industries had become too strong to be hurt. Shortly afterward,

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1.M.P.Gandhi-" The Indian Cotton Textile Industry"pp-6-24
2.M.P.Gandhi-" The Indian Cotton Textile Industry"pp 25-26
3.J.A.Scherer- "Cotton as a World Power" -P-26

Great Britain advocated free trade with India but only for British manufactured cotton goods and by 1850 India became England's best customer of cotton fabrics, finally importing more than a billion of yards yearly. Nearly all of India's imports of cotton goods came from England. [1]

About 1855-56, British capital was used to build mills near the source of the raw material in India and by 1905-6 there were in British India 204 cotton mills containing 52,300 looms, 3,293,800 spindles, giving employment to 212,700 persons and consuming over 60% of the cotton produced in India. From 1905 to 1914, the industry increased its number of mills to 239 mills and its spindles to 4,196,724.

The effect of the collapse of credit due to the failure of some banks in Bombay in 1913 continued to be felt by the Cotton Textile Industry in 1914. The war with Germany cut short the supply of dyes and the continuation of the war put a large number of mills in Bombay into liquidation.

About 1916, a large demand for colored goods helped the situation, with China being the largest consumer. Trade with Turkey was affected adversely while trade with Egypt was increased. The extreme shortage in shipping facilities greatly retarded the Indian industry from going into East African markets. The abnormal prosperity in India caused by the World War did not continue. Japan took a large supply of India's

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1. M.P.Gandhi-"The Indian Cotton Textile Industry" pp-96-99

cotton and because of her shipping facilities Japan was able to recapture her yarn trade in China.

In 1918-19, the import trade showed a large increase in the imports from Japan and a decrease in the United Kingdom's share. Japan supplied about 72%.

The years 1919-20 marked a great decrease in the quantity of imported yarn and twist, the total being the lowest since 1867.[1]

Production

Previous to the depression of 1920, the production in acreage of India was steadily upward. Then from 1921 to 1933 India enjoyed another period of expansion. However, the decline which started in 1933 continued up to the first quarter of 1935. It is felt that the recovery from the present depression is now under way. If this recovery continues and the tendency of previous years is upheld, India might increase her production greatly. It all depends upon cotton prices and the developments in economic conditions generally in India. The general price level seems to have a significant influence upon production in India. [2]

Lord Stanley in a press interview at Madras on December 31st, 1929 said "that he was anxious to encourage the growing of cotton within the Empire so that Lancashire may become independent of the American Supply"[3]

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1. M.P.Gandhi -"The India Cotton Textile Industry" pp.-96-99
2. U.S.Dept. of Agriculture -"The World Cotton Situation" April 29, 1935-India Sec. pp.1-2
3. M.P.Gandhi -"The Indian Cotton Textile Industry" p. 79

The cotton acreage in India increased from the low level of 20,000,000 acres in 1905 to 28,403,000 acres in 1925-26 and decreased 23,407,000 in 1934-35.[1] The production expanded from 3,000,000 bales to almost 5,201,000 bales in 1925 and decreased to about 3,613,000 bales in 1934-35.[2] The cotton prices slumped during the World War and this had a bad effect on production in India. The drop in India's cotton acreage and production around 1925-26 may be due to the large American crop.

The devaluation of the rupee along with the English pound is being accompanied by rising prices and expansion in acreage and production. Whether this will be maintained as the price level continues upward will depend somewhat on the price of cotton rising as rapidly as the prices of other commodities in India. An improvement in economic conditions in India along with a continuation of the shift of the cotton-textile industry to the Orient may result in larger commercial requirements for Indian cotton.[3]

Indian cotton is of the shortest staple cotton in commercial use. The range is 3/8" to 7/8" in length. India is producing a quantity of cotton from what was the American Upland Seed. This has shown a slight improvement over the native cottons. The leading varieties are Oomras and Broach and both are grown over a wide area. Some of the Oomras is from

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1. Appendix
2. Appendix
3. U.S.Dept. of Agriculture - Bulletin April 1935, p-2.

Hyderabad and ranges from 7/8" to 1" as staple but most of it is 7/8" length. Broach ranges from 7/8" to 1" and that which is grown in the Central Provinces is sometimes less than 7/8". In the Punjab, a great improvement in cotton has occurred and they now have a variety of long staple which is thought to be of American Seed. It is hard to fit the different varieties to the area best suited because the average Indian farmer has very little knowledge of the value of pure seed and prefers to plant the old variety.[1]

In 1930, Mr. Amos S. Pearse, General Secretary of Cotton Spinners and Manufacturers Association, Manchester, England, came to India to discuss the possibility of growing cotton suitable for consumption in Lancashire mills. Since that time, stapled cotton in some cases superior and in almost all cases equal to middling American and Egyptian cotton have been successfully grown in India and the prospects of long stapled cotton are very favorable.[2]

The Indian cotton industry requires long stapled cotton for her use and is therefore interested in the question of obtaining a large supply of long stapled cotton at home. Great Britain is another country that is interested in this project.[3]

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[1] U.S.Bureau of Agriculture Bulletin, April,1935, p.-4
[2] M.P.Gandhi -"The Indian Cotton Textile Industry".-pp.78-80
[3] M.P.Gandhi -"The Indian Cotton Textile Industry".-p.-79

Factors Affecting Production

The soil of India has been under cultivation for hundreds of years. In many sections, this soil has depleted due to farmers not caring or trying to maintain fertility. The soil varies from the rich alluvial river basis and delta lands to the poor sandy and rocky plateaus.

There are great variations in rainfall. Some sections get only a few inches, other sections get as much as 400 inches. This, therefore, is the reason for the frequent droughts, crop failures, and at times low yields of cotton.

Indian cotton is subject to every known cotton insect except the Mexican boll-weevil. In some sections, because of these pests, it is almost impossible to produce cotton.

India has resorted to many systems of irrigation because of the prolonged dry seasons. Canals, hundreds of miles long, supply water during short rainfalls. Numerous wells have been dug and during recent years the Government has undertaken a series of gigantic irrigation projects located in North Central India to bring millions of acres of desert and semi-desert areas under cultivation. There are about 51,000,000 acres under irrigation. Of this, about 31,000,000 acres are in British India and receive water from Government projects. The expansion of the Government irrigation works will increase food crops and therefore will be an important factor in the cotton production of the future in India.

Because of its large population, India must produce a large quantity of food, therefore, not all of the acreage available

can be used for cotton growing.[1]

The transporation system is fairly good but greatly inadequate for the size of the country. In recent years, highways are being constructed and a system of motor transportation introduced. This is partially taking care of areas away from the railroad and rivers. The ox car or pack train is still in use. Much of the suffering during famine is due to lack of transportation. An enlarged transportation system would make for a greater distribution of food and thus allow more cotton to be grown.

India has an abundant supply of cheap labor. A large percent of the people are rural, bound by habits and traditions, who keep to the one crop system and the mixing of seeds. It is not uncommon to find crops of all kinds growing together. The industries of India have not developed enough to absorb a large part of the labor so that they still have to depend on agriculture for a livelihood.[2]

The cotton planters in India tend to respond to price changes similarly to the growers in the United States. When prices of cotton advance relatively to other commodities, the acreage of cotton tends to increase. If cotton prices tend to decline, acreage declines. The prices of cotton in India are greatly influenced by the all commodity price level.[3]

The Government of India in co-operation with British owned mill owners has rendered wonderful servicesto the cotton growers

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1. U.S.Dept. of Agriculture- Bulletin- April, 1935 ps.7-9
2. U.S.Dept. of Agriculture- Bulletin- April, 1935 p-10
3. U.S.Dept. of Agriculture- Bulletin- April, 1929 p-12

through the development of new varieties suitable to the soil and climatic conditions, also in insect control and development of transportation. The Government has also stabilized the food supply by the development of the irrigation projects in the country thus increasing the possible area for cotton production.[1]

"In the year 1921, the Government set up a committee representing all cotton interests in India to co-ordinate the work to co-operate more closely with the trade. In 1923, the Government passed the Cotton Cess Act which incorporated the Indian Central Cotton Committee and provided it with funds to enable research work on cotton to be carried out. This Committee has done much valuable work in pressing for some very important pieces of legislation for the better marketing of cotton. A big research program is being carried out and it is only a question of time till results become available. All the schemes aim at an increase in yield and an improvement in quality of the commercial cotton grown. This Committee has already done useful work in improving the staple of Indian cotton and the increase in the outturn of long stapled cotton must be attributed in a large measure to its activities." [2]

The Indian Tariff, an (Textile Protective) amendment of October, 1934, was entered into the British Indian Legislative Assembly on February 5, 1934 proposing:

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1. U.S.Dept. of Agriculture - Bulletin, April,1929 p-10
2. M.P.Gandhi -"The India Cotton Textile Industry". P-79

"(a) To increase certain import duties principally affecting raw silk, silk and artificial silk yarns and piece goods and various mixed fabrics.

(b) To reduce the duty on fents to 35 per cent ad valorum under the general tariff (including importations from the United States) with a limitation to a maximum length of 4 yards (formerly 9 yards)".

This was enacted and became effective May, 1934. By this duty on piece goods and various mixed fabrics the cotton industry was protected.[1]

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[1] "Textile Colorist" - July, 1934-p. 492

MANUFACTURING

About 1818, several British merchants found that they could save the freight of carrying raw cotton to England and bringing it back in the form of goods to India. After giving consideration to the costs of a mill, erection of machinery and the inefficient Indian labor they found that India could manufacture goods by machinery at a cost 20 per cent less than Great Britain could sell British manufactures in the Bombay market.

The first cotton mill was established with English Capital near Calcutta. The real development of the cotton mills started when the Bombay Spinning and Weaving mill in 1856 commenced its work, under the management of a Parsi. At this time a smaller mill was started at Broach by an European. The textile industry at Ahmedabad, which is exclusively Indian, was started in 1859. The steady upward trend in the industry brought more capital and more mills to India.

In 1873, there were 18 factories in India with a weekly consumption of 1,500 bales of cotton or an amount equal to 6.5 per cent of the average cotton crop in India. About this time the Lancashire manufacturers became afraid of losing their market in India where they export about one-fourth of their total annual export. As a result strong agitation was started.

The Lancashire men wanted the Indian market free from any import duty for their goods and they also intended to apply the Factory Law of Britain to India.

The period from 1874 to 1896 is marked by controversy on the cotton imports'duties. The Lancashire agitations were for total abolition of duties and in 1879 the Government declared the Indian import duties unjust, and from 1882 to 1894 India was a complete free-trading country.

In 1894, when the fall in the sterling made taxation necessary, the import duty was placed at 5 per cent ad valorem.

From this time on the country was affected by depression and collapse of credit. At the time of the World War, the Cotton Textile Industry was in distress and mills had stopped working. As the War continued, England became unable to meet demands for cotton goods because she needed her men and supplies for the War, and India found a ready market for her goods. In 1916, the total exports of twist and yarn increased by 20 per cent in quantity and 10 per cent in value. China was the best customer taking 140 million pounds, but the United Kingdom was cut off by the embargo placed on the imports of Indian yarn.

The lack of transportation checked the Indian concerns in transporting yarn to China. At this time the Government of Japan offered help to the Japanese shipping lines in carrying

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cotton from India to Japan which helped the Japanese to gain the Chinese market. The years that followed were years of prosperity until 1923 when Indian piece-goods merchants were unable to meet their heavy commitments. The curtailment of exports and the reduction in the purchasing power of the country caused a depression. Japan was again ready to enter the market with a large supply of imports at prices which forced down the rates for Indian-made goods. She now became a strong competitor with Indian mill-made yarns.[1]

In more recent years, all the Indian mills have been financially embarrassed due to general strikes of mill operatives throughout the country and to communistic agitation. There are, however, some well managed cotton mills in Bombay that were able to earn fair profits and to give a return to the stockholders. These mills feel that the Indian cotton textile industry stands today on the threshold of the best period in its history.[2]

Labor

The Cotton Textile mills employ about 700,000 workers. On the plantations and in the factories, the workers are housed in company dwellings, and a large proportion are women and children.[3] Wage scale in India is almost impossible to define, wages paid in the mills in one section may differ widely from

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[1] Gandhi, M.P.,"The Indian Cotton Textile Industry"-pp. 52 to 101

[2] Moser, Charles K.,"The Cotton Textile Industry of Far Eastern Countries" - p.98

[3] Encyclopedia of Social Sciences, Volume 15, p.37

those paid in another locality, for the same class or quality of labor. It is the general belief that the British-owned mills in the Bombay section pay a much higher wage than the Indian-owned mills. Wages on the whole are very low. Living conditions are low and the worker himself very inefficient.[1]

Equipment and Efficiency

"There is a great diversity in the equipment and efficiency of Indian cotton mills. The Monogram Mills of Ahmedabad have a reputation throughout India and even in Great Britain for ranking high among the best in the world. Some of the Parsee-owned mills around Bombay are models as to plant and equipment and the benevolent policies pursued by their owners. In South India, particularly in the Madras Presidency and the native State of Mysore, the cotton mills are reported as enjoying a high reputation both for quality of output and efficiency in management. In contrast to these highlights of the industry, it is undeniable that in a majority of the small mills throughout the country and in a good many of the large mill organizations also, wages and labor alike are of an extremely low standard. The equipment in these mills is sometimes elaborate, in others inadequate and neglected; in all of them it will be found that mill management is largely of the hit-or-miss system".[2]

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1 & 2 Moser, Charles K., "The Cotton Textile Industry of Far Eastern Countries"-p.97

Tariffs

The first enactment of the Legislative Assembly 1930 was to raise the duty on imported cotton piece goods from 11 per cent to 15 per cent ad valorem. On April 2, 1930, the Assembly passed the Tariff Amendment Bill providing an increase in the duties on cotton piece goods not of British manufacture. This was simply leveled at Japan as far as volume on imports of grey piece goods were concerned. In spite of additional duty, Japan was still able to sell in the Indian markets. As a result, the Indo-Japanese Agreement was entered into.[1]

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[1] Ibid - p.99

Indo - Japanese Agreement

The effect of the Japanese competition has been felt for some time by the Indian Cotton Industry because it has been unable to compete with Japanese goods, in her own market, in spite of high tariffs. The Indian Government has been aware to the possibilities of Japan as a customer for Indian cotton.

As the result of many months of negotiation, an agreement between Japan and India was reached. By the terms, Japan guarantees to take a certain quota of Indian cotton and in return India was to consume a large proportion of Japan's manufactured goods. The imports of Japanese cotton goods into India are to be limited to 400,000,000 yards which compares with 579,000,000 yards for the last year. It is anticipated that this will leave scope for a healthier state of affairs in the Indian cotton mills, and at the same time leave room for a larger per cent of Lancashire goods to be imported than has been the case in the last few years.[1]

The result of the British mission to India last year was a much greater feeling of goodwill between Lancashire and India. A promise of lower tariffs on Lancashire goods was obtained with a return on Lancashire's part of a genuine attempt to foster the rise of Indian cotton.[2]

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1 & 2 Manchester,England Correspondent-Textile World,Feb.14,1934

Organization

The rise of unionism, when wages lagged behind prices, was followed by strikes, which led to the formation in 1920 of the All-India Trade Union Congress which opened the way for many other unions. In 1922, membership in labor movements was estimated at 500,000.

The second period, 1928-30, was stimulated by the apread of communism and by the non-cooperation campaign of the nationalists. In 1929, the government's Public Safety Ordinance ordered the deportation of all non-Indian communists and strict supervision of all agitators.

Labor disputes, which in 1928 and 1929 involved 1,000,000 workers in 334 strikes have since affected about 200,000 annually. Trade unionism is strongest in Bombay and weakest in Bengal. Organization has been industrial in structure. The Ahmedabad Textile Labor Association, a strong union with schools, libraries, hospitals and cheap grain shops, is a federation of craft unions. Leadership is supplied by the educated classes, who have been influenced by western socialism and Indian nationalism.[1]

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[1] Encyclopaedia of Social Sciences, Volume 15, p.37-38.

FOREIGN TRADE

Imports

The principal items in the import trade of India are cotton and cotton goods. They accounted for less than 26 per cent of the total import trade for 1933. The total value of the imports of cotton manufactured was Rs 26,83 lakhs as against Rs 19,15 lakhs in the preceding years. These imports were up considerably more than in 1932 but were less than in 1931 when the value was Rs 59,49 lakhs. All classes of cotton manufactured shared in the increase.

The cause of this increase in demand may be due to a revival in the piece goods which had fallen off considerably. Prices in Calcutta declined steadily due to the depreciation of the yen which made it possible for Japan to sell piece goods in India at very low rates in spite of additional duty. Then there was great weakness in the boycott agitation during the year which resulted in an expansion of imports from Great Britain.

The increase in cotton twist and yarn was very high. Quantity imported during 1933 exceeded even 1930 by 1.2 million pounds but the value though higher was less than that of 1930. The item of great importance in this increase is the rise of Japan's share in the trade. Of the total quantity imported, 18.1 million pounds came from Japan against 6.2 million pounds in 1932. Great Britain shipped 13.4 million pounds as against

11.9 million pounds in 1932. The imports from Japan rose from 20 per cent to 40 per cent during 1933 but Great Britain declined from 38 per cent to 30 per cent. Imports from China amounted to 30 per cent and this would increase the per cent for Japan as most of the Chinses mills are under Japanese management. In spite of the increase in imports the production also increased,the total rose to 1,016 million pounds in 1933 from 966 thousand in 1932. The production of yarn is creating a new record for itself.

The imports of cotton piece goods increased in 1933 but compared with 1930 it was 36 per cent lower. The imports of grey goods from Great Britain in 1930 amounted to 521 million yards,in 1932 they fell to 60 million yards but in 1933 they rose again to 111 million yards. The imports of grey goods from Japan dropped from 394 million yards in 1930 to 185 million yards in 1932 but rose again to 244 million yards in 1933. The white goods imports from Great Britain declined from 436 million yards in 1930 to 207 million yards 1932 and rose again to 281 million yards in 1933. Japan rose from 14 million yards in 1930 to 60 million yards in 1932 and again to 120 million yards in 1933. In color goods imports from Great Britain dropped from 279 million yards in 1930 to 110 million yards in 1932 and rose again to 194 million yards in 1933. Japan declined from 150 million yards in 1930 to 95 million yards in 1932 and rose to 214 million yards in 1933.

In the increases and decreases in the imports to India it can be seen that Japan has practically captured the Indian piece goods market from Great Britain. This is important because of additional restriction placed on non-British plain grey cotton piece goods. The depreciation of the yen made the new tariff unworkable by the heavy decline in price of Japanese piece goods.[1]

Exports

The principal item of export is cotton,raw and manufactured. In 1929 the exports from India were valued at Rs 74 crores; in 1932 they were valued at Rs 29 crores and in 1933 their value was Rs 24 crores. From the forgoing values we find a decrease in exports equal to more than two-thirds that of 1929. The probable cause for this is the higher parity for Indian staple cotton which was around 94 for the greater part of the year. The expectation of a great demand for home consumption may be one reason for this high parity for her long staple cotton when compared with American cotton. The import duty on foreign cotton also would help to raise the price. The total amount of raw cotton exported was 2,063,000 bales but in 1932 the exports amounted to 2,369,000 bales.

Japan was the largest customer with neither an increase nor a decrease. Great Britain slightly increased her share. Exports to China and Italy declined considerably.[2]

1.& 2. "India "-A statement prepared for presentation to Parliament,-Requirement of the 26th.Section of the Government of India. pp.120 -127

India Currency

In order to help in interpreting the amount of the imports and exports under Foreign Trade, I am giving a brief description on how to read the currency of India.

In March 1927, the Indian Currency Act made the stabilization of the rupee at a rate corresponding to an exchange rate of one shilling.six pence.(1s. 6 d. (gold).

Rs. 13-1/3 = £ 1

16 annas = 1 rupee

Rs. 1,00,000 = 1 lakh

Rs. 1,00,00,000 = 1 crore

A hundred thousand rupees is called 1 lakh and is written thus: Rs. 1,00,000 ; and one hundred lakhs is called 1 crore and is written thus: Rs. 1,00,00,000. [1]

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[1] "The Statesman's Year Book " 1935 -p.146

CHINA

Historical Background

Cotton growing in China is relatively young. It was started in the Eleventh Century but apparently did not develop to any great extent. In recent years, the growth of the cotton industry has developed very rapidly. This growth may be partly the result of the suppression of opium growing. There has been a tendency for these opium growers to turn to cotton growing. In early times, cotton was used in China not only for home spinning, but also for padding of the native garments. Together with rice, it was used to pay the Government taxes.[1]

Since 1890, a modern textile industry has been developed in China, predominantly with Japanese capital. This industry which has developed rapidly since the World War shows that a decided shift of the center of the world textile industry from the West has moved to the Orient, principally in Japan and British India.[2]

Today China is the third largest cotton growing country of the world, exceeding Russia and Egypt; but unlike the United States and Russia, she is a great cotton importing country. She is like Russia in that she consumes the greatest portion of her own cotton.[3]

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1. C.Y.Tang - "An Economic Study of Chinese Agriculture." PP-420-425
2. Schedule # - Shows the development.
3. U.S.Dept. of Agriculture- Bulletin- April, 1935, China Section, PP. 1-2.

Production

Previous to the post-war period, there seem to be no available figures on cotton acreage and production in China.

In 1920, the area of planted cotton was about 4,300,000 acres and this acreage seems to have kept about the same until around 1928 when there was a decided upward trend. In 1931, this upward trend fell back by 16 per cent probably due to the Yangtze Valley flood. The upward movement was resumed the following year and in 1934, the acreage planted in China reached 6,700,000 acres, a record figure for China.[1]

Within the period 1920 and 1930, production varied between 1,400,000 bales to 1,500,000 bales but in 1933 production made a real upward trend reaching a record high of 1,990,000 bales and continued this upward trend in 1934 with a production of 2,150,000.[2]

From this, it can be seen that cotton production in China has greatly increased in recent years.

Cotton is grown in Northern and Central China. The leading center of cotton production is in the lower Yangtze Valley in the Province of Kiaugsu, near Shanghai which is the center of the cotton textile industry, also in the Province of Hupeh with Hankow one of the leading cotton markets. These two provinces account for 45 per cent of the total producing area.[3]

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1. U.S.Dept. of Agriculture-Bulletin,April 1935-"China Section" p.2
2. U.S.Dept. of Commerce-Bulletin, 172-1934,-p.43
3. Paul O.Nyhus,-"Cropping System and Regional Agriculture in China." May 25, 1931.

The increase in acreage during the last few years was in North China in "Hopeh and Shensi ". Hopeh increased from 10 per cent in 1931 to 17 per cent in 1934 and Shensi increased from 3 per cent to 9 per cent in 1934.[1]

A large portion of the best Chinese cotton grown is in Northern China where the American seed was introduced and crossed with the native varieties.

In the Hsiho district, the cotton produced is of the short staple type, about ½ inch, white in color but stiff and thick. It is not fit for fine spinning, but it is used for coarse spinning, as cushions and for gunpowder making. It is this variety and for this reason that Hsiho cotton is exported to Japan and the United States.

The cotton in the Muho district is of a longer staple, about 5/8 inch, white in color but a little softer than Hsiho cotton. It is used only for coarse spinning.

The Yuho district produces a longer staple cotton, about one inch long. It is said to be derived from American seeds and is more adaptable to finer spinning than any of the other varieties.[2]

"Even when not adulterated, Chinese cotton is inferior in quality to the American, Egyptian, and Indian varieties. The Chinese product is generally divided into what is known as 'white and 'purple" cotton. While the fibre is generally silky, clean

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[1] U.S. Dept. of Agriculture Bulletin-April,1935-China Section, p. 3

[2] H.D.Fong pp. 277-280.

and takes blue dyes readily, the twist is generally low and the tension poor, especially in the "purple" cotton which lacks elasticity and is harsh and coarse".[1]

Factors Affecting Production

In the northern part of China, which is really the cotton producing section of China, there are short cultural seasons which necessitates a one cropping system of planting. Because of these short seasons, early frosts, and frequent occurrence of spring droughts which sometimes continue until May and June, the areas for cotton are limited and the yield is reduced. One or two seasons of these droughts might alter the expansion of cotton in these sections.

In the Yangtze Valley, cotton is usually planted as a second crop but excessive rains if during the harvest period will damage the entire cotton crop.

The transportation facilities are very poor mostly by animal and man power which is slow and costly, the roads are poor and the cost of haulage is a serious setback to cotton expansion.

Cotton is grown in China by peasant cultivators. It is believed that if better seeds, more fertilizer and the utilization of the labor that is now idle were encouraged that the cotton field could be cultivated far more extensively.

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1. United States Dept. of Agriculture-Bulletin, April,1935

The Chinese Government has done everything to foster cotton growing. One of the Government's latest measures is a tariff which levies an import duty of 48 cents per 100 pounds. This duty became effective in January, 1923; it was increased in February, 1929 to 58 cents per 100 pounds; in March, 1930 to 63 cents per 100 pounds and in July, 1934 another increase which brought it to a little less than 2.00 cents per pound.

In October, 1933, the Government formed the Cotton Industry Commission which was to plan for the development and improvement of the Chinese section of the spinning and weaving industries. Its duties was also to help the cotton-growing industry. The main functions of this Commission were to develop cooperative marketing, standardize and inspect work, and help improve the quality of Chinese cotton.

A Central Cotton Improvement Bureau was established in the early part of 1934, at Nanking. This Bureau gave its time to the problems of seed supply, cotton grading and inspection services and short courses for training personnel in connection with cotton work.[1]

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1. United States Dept. of Agriculture, "The World Cotton Situation". pp.4-7

MANUFACTURING

It is now many years since the cotton textile industry became of great importance in China, but it was not until 1895 at the conclusion of the Sino-Japanese War that foreigners were given the right to import machinery and engage in manufacturing in the Treaty Ports. The World War gave the industry a helping hand and since 1915 the number of mills, spindles and looms have increased tremendously. The large profits made from the World War attracted Chinese capital and inexperienced management. Many of the Chinese owned mills are still suffering from the effect.

The Cotton Textile industry in China today is owned by three separate nationalities, the Chinese, the Japanese and the British. Organization is poor and this is probably due to the different methods of management.

The Chinese owned mills seem to be under the influence of the Japanese, they are organized in the same manner but lack the equipment, the management, the cleanliness and the general efficiency of the Japanese mills. The number of employees in these mills is about 25 per cent more than that used in the Japanese owned mills.

The Japanese owned mills are organized and operated the same as in Japan. One might call them branches of the big three of Japan. These mills produce an inferior grade of goods

compared to that produced in Japan, this is due to the inferior labor and the differences in the grade of cotton used,but this type of goods is what is wanted in the Chinese market. The equipment is not as good and only a few automatic looms are being used due to the irresponsibility of the workers. The Japanese have the advantage of the British in their ability to get in closer contact with and maintain direct supervision of their labor. These mills are the best managed and equipped in China.

In the British mills the situation is different,they are managed by Manchester-trained men,except for the operatives and these are Chinese. This is a disadvantage as there is no way for them to keep direct supervision over the labor only through one of their own class. The number of employeesin the British owned mills is about one-third more than in the Japanese owned mills. The British lack the facilities for selling their goods that the Japanese have through the three large Japanese raw cotton import houses in Japan.[1]

Labor

Most all the Chinese labor is unskilled and of the most irresponsible type. They suggest by their conduct that they are satisfied with what ever pay the day brings and are not interested in gaining great rewards like the Japanese. This class of labor cannot be compared with any in the cotton

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[1] Moser,Charles K.,"The Cotton Textile Industry of Far Eastern Countries",pp65-66

textile industry. The girls are rapidly developing into good mill hands.

Wages are extremely low, male and female average about fifty cents per day. There are a number of young girls, apprentices, who work at machines without pay except for a few coppers per day which is called "rice money".

The mills work on an average of twenty-four hours per day with two shifts of twelve hours each and with one hour per shift allowed for time out. As a general rule, much of the machinery is cleaned during this time out.

There is a factory law which provides that no child labor be employed under the age of fourteen years and both boys and girls between fourteen and sixteen must be employed to perform light work. The hours and wages of the workers are supposed to be regulated, but the law is practically a forgotten one.[1]

Organization

In China, there is a Chinese Cotton Mill Owners' Association. The duties of this association are to collect and supply information on piece goods and raw cotton movements to its members.

In the labor group, organization was slow until the World War when progress was made. By 1916, the literary revolution roused the literati to an active interest in the conditions of labor, about 1919 the student movement agitating against Japanese control of Shantung and the weak government of Peking, carried

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[1] Moser, Charles K., "The Cotton Textile Industry of Far Eastern Countries", p.68

the new social ideas to the workers and urged them to organize, to strike and to boycott.

The first union was organized in 1909. From then until 1920 the progress was slow but with the success of the mechanics' strike in Hongkong many unions were formed. In 1924 communists were admitted, then unrest followed and the downfall of the Hankow government. Under the Kuomintang domination the labor movement is a weapon of the party rather than of the working class. The subsidies given to the unions from the factory owners are actually contributions to the party. The seeds of unionism are all around China, but so far no real large formation has taken place.[1]

There is much welfare work in China but compared to the needs of China it is very small. The Japanese mill owners have done much for their employees and are gradually bring the same welfare methods into China that are used in Japan.

Exports

Most of the production in China is produced for domestic use. This home market will consume practically all they can possibly produce. Goods are inferior but satisfactory for home consumption. All the exports from China are from the British and Japanese owned mills. The exports are so small that they are listed in foreign trade under other countries.

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[1] Encyclopaedia of Social Sciences, Volume 15 ,p 37

Marketing

China has a large spot market for Chinese, American and Indian cotton and a futures market for Chinese cotton located in Shanghai which is one of the great cotton merchandising centers of the world, because here is concentrated about half of the cotton spinning industry of China. These markets handle about 700,000 bales of Chinese cotton, 400,000 bales of American cotton and from 200,000 to 400,000 bales of Indian cotton annually.

The market consists of about 50 firms mostly selling agents for foreign export houses. Most of these firms carry Anglo-Saxon or Japanese names. The Japanese firms are large dealers in American, Indian and Chinese cotton. About one-third of the cotton consumed in the mills in China is used in mills which are owned by Japanese.[1]

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[1] Garside, A.H. ,"Cotton Goes to Market"-p.127

BRAZIL

Historical Background

In Colonial days, the settlers of Brazil undertook the cultivation of cotton in the regions of Bahia, Pernambuco and Marauhao. Spinners and weavers were brought by the Portuguese from India to teach their arts to the Brazilians. Exports are reported to have been made as early as 1700, and spinning and weaving mills in operation by 1775.

It was not, however, until the American Civil War that the cotton industry made any forward movement. At this time, the European spinners being unable to obtain American cotton had to look elsewhere to meet their demands. During this period, the exports, shipments of Brazilian cotton, are said to have reached 368,000 bales. With the return to normal conditions and with the abolition of slavery in the United States, the Brazilian cotton crop declined greatly and most of the planters returned to coffee, rubber and sugar growing completely putting the cotton industry in the background of their economic life.

The World War was a great factor in changing both capital and labor back to the cotton industry. Since that time, Brazil has become an important factor in the world cotton production.[1]

Production

Cotton is grown in the Northeastern States, principally in Parahyba, Pernambuco, and in the Southern States where the major

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[1] U.S.Dept. of Agriculture-Bulletin - April, 1935-Brazil Section, p.1

producing areas are found in the States of Sao Paulo, Minas Geraes and several others.

From what acreage data there is available, the total cotton area of all Brazil has exceeded 2,000,000 acres for the periods ending 1933-34. The last five years' period, 1929 to 1934, shows an average acreage of 1,877,000 acres. From 155,000 acres in 1929-30, cotton acreage increased until a high of 1,113,000 acres reached in 1934. In 1929-30, the Southern States area equaled 19 per cent and the Northeastern States area equaled 81 per cent of all the cotton area planted in Brazil. In 1933-34, the Southern States increased to 44.2 per cent and the Northeastern States declined to 55.8 per cent of all the cotton planted in Brazil.[1]

"The fact that cotton acreages during the last two years have been greater than can be explained by past relationships in cotton and coffee prices is probably due to such additional factors as: (1) legal restrictions on further planting of coffee trees, (2) more active effort on the part of the government to encourage cotton production due in part to the desire to develop another important export crop to supplement coffee, (3) the increasing interest of foreign and domestic capital in Brazilian cotton production, and (4) perhaps the 'lingering' effects of the extremely high prices of cotton in Brazil in 1932-33."[2]

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1. U.S.Dept. of Agriculture-Bulletin, April,1935-Brazil Section, pp. 2-3
2. U.S.Dept. of Agriculture-Bulletin, April, 1935-Brazil Section, p. 13

Cotton prices in Brazil during 1932-33 were the highest in about eight years.

The annual crop production during the period 1929-30 for the entire country was 535,000 bales. For the period 1933-34, it was 1,332,000 bales. The average annual crop production for the five year period, 1929-30 to 1933-34, was 609,000 bales, while the average for the Southern States during this period was 197,000 bales or 32.3 per cent of the total cotton production of the country. The production in the Southern States increased to a crop estimated at 500,000 bales in 1933-34 and to a preliminary estimate of 853,000 bales in 1934-35, equivalent to 53.6 per cent of the total estimated Brazilian crop.[1]

Two distinct kinds of cotton are produced in Brazil. The long staple perennial tree-cotton variety which is of major importance, is grown in the northeast, and the American Upland short staple variety which is produced mostly in the Southern States. Although much of the Southern Brazilian cotton is of the American Upland variety, and compares favorably in staple length, it lacks the strength, uniformity, fineness and the freedom from fiber imperfections of the American cotton. Most of the shipments to Europe and other manufacturing centers indicate wide variations in quality. The recent increase of this American Upland variety in Brazil is of great importance to the United States because of the competition it offers to the American cotton in the world markets.[2]

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1. U.S. Dept. of Commerce -Bulletin, 172 p.43
2. U.S. Dept. of Agriculture Bulletin, April 1935-Brazil Section, PP.6-7

Factors Affecting Production

The northeastern section of Brazil suffers almost periodically from severe droughts sometimes of long duration. The soil in this section is thin surface soil and the deforestations prevent the storage of surface waters. Along the coast and coast plain area, the rainfall is abundant compared with the interior plateau region. Irregularity of rainfall is one of the greatest handicaps in cotton growing. Constructions of dams and reservoirs in Northeastern Brazil has been undertaken by both private and Governmental projects. The rainfall in Southern Brazil is sufficient for all agricultural purposes and is well suited to cotton growing. The cotton does not suffer from drought in the Southern States.[1]

The climate in both Northeastern and Southern Brazil is very favorable to cotton growing, with agreeable winters, the temperature never drops below freezing and killing frosts are unknown. The summers are comparatively cool.[2]

In Northeastern Brazil, the soil of the plateau districts ranges from sandy to heavy clays, most of it is of an alluvial formation. The soil is very fertile and will produce abundantly if supplied with moisture. In Southern Brazil, the soil ranges from a sandy clay to clay loam and resembles the Piedmont soils in the United States. This is where most of the cotton is grown.[3]

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1. U.S.Dept. of Agriculture Bulletin-April,1935-Brazil Section, pp. 9-10
2. Leo O'Neil -"Lectures in Economic Geography"- July, 1935.
3. Leo O'Neil -"Lectures in Economic Geography"- July, 1935.

In 1925, there was a shortage of labor but since that time, and through the encouragement from the Brazilian Government, there has been a large increase of European Immigrants into Southern Brazil, mostly Italians, Spaniards and Japanese. The Europeans are willing to work mostly as labors but the Japanese prefer to buy their land. At the present time, there is adequate labor to care for the acreage devoted to cotton growing, and the general tendency is to restrict immigration. The Constitution of 1934 carries out this tendency and provides for careful restriction of immigration.

There is keen competition between coffee and cotton in regards to labor because both harvest seasons are at the same time and labor flows into whichever crop offers the best returns.

The Japanese Consul at Sao Paulo estimates that 42 per cent of the cotton growing in that State during 1933-34 was produced by Japanese labor and Japanese owned land.[1]

The cotton pests common in most of the Brazilian States are the Pink Ball Worm and the Cotton Worm. They seem to have complete control of them at the present time.

The transportation facilities as a whole in Brazil are very poor, but the cotton production areas in Southern Brazil are chiefly in regions readily accessible to railway lines. The transportation facilities in the cotton belt in the Northeast are not so good. This inadequate transportation is one of

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[1] U.S.Dept. of Agriculture Bulletin-April,1935-Brazil Section, P.15

their major problems in further expansion of cotton production in Brazil.

Shortage of equipment such as modern ginning machines is another major problem.

Lack of capital or an organized credit system for the making of loans to small farmers is another major problem.[1]

The National Government of Brazil has a protective tariff on foreign cotton amounting to about $0.17 per pound in United States money. There is a high protective tariff on yarns and finished goods which ranks as one of the highest in the world by which the local textile industry is protected. The Brazilian States have also an import tariff for within the States, thus making each State supply all its own industry, if possible. This has contributed to an increase in cotton in many of the States.

The Federal Decree of March 27, 1934 requires the annual registration and licensing of all cotton gins and presses, also for an inspection of all ginneries. Of interest to the United States is the fact that since this decree , exports of American ginnery machinery to Brazil were valued at $558,000 in 1934 against $68,000. in 1933. No doubt, much of this machinery went to replace obsolete equipment.

On July 14, 1931, by a decree the Federal Textile Plant Bureau was given power to provide for the official classification of all cotton for exporting and to install commissions in the principal cotton centers in Brazil. It was further decreed

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1. U.S. Dept. of Agriculture Bulletin-April, 1935-Brazil Section, PP. 16-22

that all cotton transactions must be effected according to the quality of the product as determined by official classification certificates.

The Federal Government on July 25, 1933 entrusted the Federal Textile Plant Bureau of the Ministry of Agriculture with the distribution of all cotton seeds for planting purposes. It was hoped that this may bring about further improvements in the quality of cotton and a result in increasing yields. A large number of agricultural experiment stations are located throughout the States developing the varieties of cotton best suited to local conditions.[1]

The Government has also undertaken an extensive public works and drought relief program in the Northeastern States and is working on irrigation systems and highways. The Brazilian Press is giving this a lot of publicity and both official and private sources are looking toward the development of cotton as a second export crop.[2]

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1. U.S.Dept. of Agriculture Bulletin -Brazil Section, pp.-17-18
2. U.S.Dept. of Agriculture Bulletin-, April 1935, Brazil Section, p.18

JAPAN

Growth of the Industry

Over a period of forty years, Japan rose from a position of unimportance to become the competitor of the world today. During this time she fought in three successful wars and built up an empire on the result of her cotton textile industry and exports. She piled up the profits received from these periods and has lived off them ever since.

The cotton textile industry of Japan is the most financially sound and progressive industry in any country today, although it is second to the raw silk industry. It became secure because of the World War and the profits it had piled up; it was able to take advantage of the opportunities offered at this time.[1]

The Japanese do not hedge on their purchases and this has been one of the reasons for the rapid industrial advance. At the commencement of the World War, the full supply of the cotton requirements for the year was purchased because some of the mills feared that development of hostilities might prevent them from obtaining their regular supply. Because of this large purchase and the advance in cotton prices the Japanese mills were enabled to build up very large reserves amounting to mearly 60 per cent of their paid-up capital,

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[1] Moser, Charles k., "The Cotton Textile Industry of Far Eastern Countries", p.4

to pay high dividends and to extend the mills. Japan had another advantage due to England and other suppliers not being able to meet their regular demands. The Japanese found themselves freed from competition and as a result they were able to build up a great trade in other markets, principally in India, South America, Africa and Near East.

Japan has control of the cotton market in China. Realizing her disadvantage in export trade in good times, she built large mills there using cheaper labor and escaping imports' duties on her goods.[1]

Japan is today self-sufficient in the production of textiles and she is rapidly increasing her output. The Japanese mills do not produce for domestic consumption only, as the mills in China do, but for export. Their plants are huge and standardized goods are the main items of production.[2]

Factors of Prosperity

The most powerful factor in Japan governing social conditions and the advance in industry is the Family System.[3] Japan has a rule, "One for all and all for one," which governs their organization; the group and the state, never the individual, are to benefit from the activities of its members.[4]

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1. Gandhi,M.P.,"The Indian Cotton Textile Industry",pp.125-127
2. Encyclopaedia of Social Sciences, Volume 14,p.587
3. Isoshi Asahi,"The Secret of Japan's Trade Expansion",p.67
4. Moser, Charles K., "The Cotton Textile Industry of Far Eastern Countries", p.5

The Family System and their method of organization is the main reason that the Japan Cotton Spinners' Association embraces about 97 per cent of all the cotton spindles and 80 per cent of all the power-looms in the country. There is no other union within the industry and the Spinners Association decision is law. In this organization and management, four mills are concerned and they control not only 60 per cent of the industry but also three large purchasing firms that undertake the buying and selling of goods in China and India,thereby eliminate the middleman.[1]

There is great coordination between all branches of the cotton industry and practically every principal industry in the empire,due to interlocking interests. Dr.Pearse has said of Japan,"The whole state is one trust". When one visualizes that fifteen great families control 70 per cent of the entire trade and industry of the empire, it is easy to see why every branch of every industry moves under the general direction of the same shrewd,powerful heads.[2]

The cotton textile exports of Japan are 80 per cent controlled by nine of the fifty-five principal mill manufacturers. Of the total raw cotton consumed about 75 per cent of it is handled by three buying and selling concerns that h have branches all over the world. At times these concerns

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1.Gandhi, M. P.,"The Indian Cotton Textile Industry," pp.125
2.Moser,Charles K., "The Cotton Textile Industry of Far Eastern Countries," p.5

sell cotton to the mills below replacement cost and again they sell the products of the mills in foreign countries on a commission basis.

The banks of Japan are controlled by the same interests that control the mills. They are also the ruling interest in the shipping companies, therefore all financial negotiations are done on a lower interest rate.

The result of this interlocking of interests and organization is that the cotton industry gets at all times the best services at lowest rates from the most highly organized institutions and the best commercial minds in Japan.[1]

In 1931, and thereafter, the government gave subsidy to export associations for the furtherance of establishing oversea branches of export associations. The duty of these associations is to supervise the enforcement of the agreements made among the members as to the minimum prices and the maximum quantity of their articles for exports. The aim of this subsidy is to prevent dumping.[2] The government also pays subsidies to the shipping companies which bring raw material from the United States and China. The Japan Cotton Spinners' Association receives from the Japanese steamship lines a rebate of yem 1.40 or 70 cents per bale of 400 pounds on all raw cotton brought by their steamship lines from the many

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1. Moser, Charles K.,"The Cotton Textile Industry of Far Eastern Countries" - p.6
2. Isoshi Asahi, "The Secret of Japan's Trade Expansion"-p.3

Indian ports, a reduction of about 40 per cent . A regular monthly service of steamers to East African ports, carrying piece goods to them and bringing raw cotton back also receives a subsidy from the government yearly.

The Japanese as a whole have aspirations and ambition and this is encouraged by both the government and employers by sending their bright young men all over the world for training. They are by nature inclined toward sciences, politics and literature. They will generally return to Japan with a wide knowledge, technically and literally trained. The Japanese are keen competitors and strive to conquer.

Japan's geographical position has been an important factor in developing her markets in China and Dutch East Indies. She is a great copier of the western countries and can receive designs of American or European origin, copy them, receive orders and deliver the goods to India, the Dutch East Indies or the Phillippines before the country of origin.

Japan has built a large and speedy merchant marine, and has established lines and communciation in all Oriental countries . Japan has not tried hard for other markets but has restricted her markets to Asiatic territory.[1]

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[1] Charles K. Moser, "The Cotton Textile Industry of Far Eastern Countries"-PP.6-12

MANUFACTURING

Spindles in Operation

The number of spindles in operation in Japan, in 1934 was 8,000,000 with as estimated increased from 50,000 to 70,000 spindles a month during the year. Since 1928 she has increased her spindles by over 2,000,000. She is rapidly expanding and many new mills are being planned. She has replaced the customary group driven motors with individual motors by the use of the Japanese made two speed motors. This saves motive power amounting to 50 kilowatts per bale. Moreover, less space is required because 47,000 spindles can now be accommodated in the same space that formerly held 30,000.

The cotton spinning industry is able to produce finer counts of yarns without increasing the fly of raw cotton. In 1932, the percentage changed to; grosser counts, 59.8 per cent; middle, 31.1 per cent; fine, 1.6per cent. These figures show that much efficiency has taken place in the spinning section of the industry.

In the weaving section, much progress was made in the efficiency of the machines. The wastage of yarns over the last three years has decreased one-third. This is the result of the adoption of Japanese automatic looms, "Toyoda" which is considered to be the world's best.[1]

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[1] Isoshi, Asahi "The Secret of Japan's Trade Expansion" pp.33-37

The mixing of cotton is an art of which the Japanese mills are proud. Each mill has its own mixings which differ according to the price at which the yarn is to be sold or the purpose for which it is wanted. Frequently, two kinds of Indian cotton are mixed or a combination of American and Indian cotton may be mixed.[1]

Labor conditions in Japan are not as satisfactory as they could be. M.Fernard of the International Labor Office, Geneva, once said,"The Japanese worker is the most valuable capital in the Japanese nation".[2] The Japanese are diligent workers and keen competitors. He likes competition, as a factory worker, he works with others of the same factory in producing better goods in a shorter time. His energies are directed towards making his factory the best among the factories of the same company. All his efforts are directed to make his company excel its rivals. The employer usually takes advantage of this national trait and encourages his workmen by distributing prizes to those who have produced better articles or by holding inter-factory matches of various nature.[3] The dexterity of the Japanese labor is well known. The British Commercial Counsellor in Tokyo described him as "a deft-fingered person who has been unrival for centuries."[4]

1.M.P.Gandhi, "Japanese Cotton Industry"-p.126
2.The Japan Advertiser, April 21, 1934
3.Isoshi Asahi,"The Secret of Japan's Trade Expansion"-pp.50-51
4."Economic Conditions in Japan"- p.29

The capital charges in the cotton textile industry of Japan are low, for mills cost far less, and labor occupying about a half of the cost. Machines are operated two shifts of nine or ten hours each, thereby, giving an effective gain in machine hours, compared with the United States, of from 33 1/3 per cent to over 100 per cent, with overhead costs greatly reduced.

Distribution cost like factory operating costs are very small, for store rent and wages are small.[1]

The efficiency of labor is good as strikes have become comparatively rare and laborers are producing more. There is very little time lost in shutdowns. The girl workers are contented and happy and no opposition is made to the stretch-out system. Far more looms are tended by each weaver than with us. At the present a Japanese girl worker attends to 8 looms or 30-40 in the case of automatic looms, on an average. The industrious nature of the Japanese worker is sometimes taken for docility by the people in the United States and England.[2]

The average textile wage in Japan, with all bonuses and perquities, is between two and four cents an hour. The textile labor is made up mostly of girls from fourteen to twenty years of age. When these girls enter the employment of the company they are cut off from the world, because most

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[1] The Saturday Evening Post-Article by Wallace B. Donhan, July 6, 1935 -p.34

[2] Isoshi Asahi, "The Secret of Japan's Trade Expansion" p.50

of the mills are in small villages on the outskirts of the great centers of population. These workers are housed and fed in dormitories for well below market prices. The living conditions are clean as the standards of cleanliness and hygiene are higher than in the congested areas of the United States and England. As to education, every factory girl in Japan has finished a compulsory elementary education of six years before they come to the factory. The company usually provides facilities for secondary education, the course of which is usually for four years.[1]

In the cotton textile industry, the actual working hours since July,1930 are 8½ hours per day, with one-half hour rest. They begin their work day early about 5 A.M.[2]

The standards of living are low, and there is sad poverty in Japan as there is everywhere in the world. The standards of living anywhere must be thought of in relation to the social requirements. The people of Japan live very simply, and a few cents a day will purchase all that they need. The worker of Japan is able not only to make both ends meet but also to satisfy his cultural wants and save as much as 12 per cent of his income.[3]

Most of the girls work in the mills for short periods varying from one to six years while they accumulate dowers. The whole system of the textile labor is closely related to the social institution of marriage.[4]

1.Isoshi Asahi,"The Secret of Japan's Trade Expansion" -p.27
2. Moser,Charles K.,"The Cotton Textile Industry of Far Eastern Countries" p.15
3. Isoshi Asahi,"The Secret of Japan's Trade Expansion" p.112
4. Saturday Evening Post, July 6, 1935-Article by Wallace P.Donhan p34

Employment in general showed an increase of 322,o79 workers or 6.3 per cent over 1933. The average monthly employment index for the first nine months of 1934 increased by 9.7 per cent over the average for 1933, 20.3 per cent over the average for 1932 and 20.8 per cent over 1931. Wage rates declined by 2.4 per cent during 1934 as compared with 1933, 5.6 per cent compared with 1932 and 8.9 per cent compared with 1931. The Bank of Japan showed earnings for 1934 90.7 per cent as compared with 89.2 per cent for 1933 and 88.1 per cent during 1932.[1]

Prior to 1928, there was plenty of labor disturbance as a result of which the imperial ordinance was put in force. This law makes radical plotting against the political system of Japan punishable by heavy penalties including death. This has dissolved the Communist Union. Periodic police raids upon alleged communists since then had placed under arrest by October,1933 about 29,646 persons. The Japanese Trade Union Congress was founded in September,1932 and it controls 80 per cent of all trade union membership. This union does not effect the textile industry to any great extent because they are less than 5 per cent organized.[2] Between 1928 and 1934, there has been a steady improvement in labor troubles which is the result of propaganda of the existence of a national emergency.

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[1] United States Dept. of Commerce-Annual Trade and Economic Report of Japan,-January 21,1935-pp.4-6

[2] Encyclopedia of Social Sciences, Volume 15- p.36

The welfare work in regard to Japan means various living facilities and amenities of life which the employer provides for the use and benefit of the workers he employs. These include discharge or retirement allowances, long service bonuses, living quarters and dormitories, medical expenses, hospital and sanatorium expenses, education and entertainment.[1]

Cotton Yarn and Piece Goods

The production of cotton yarn for 1934 increased 12 per cent over 1933. During 1934, the spinning industry operated under restrictions on output amounting to 27.6 per cent for the first six months and 18.8 per cent for the remainder of the year. The increased gain in yarn production kept prices from advancing with raw material costs. The maximum efficiency appears to have been attained as no month of 1934 equalled the high reached in 1933. However, the average output per worker for 1934 is the same as for the year 1933, while the output per working spindle is 1½ per cent higher.

The total for cotton textile is not available but reports show a gain of 18 per cent in value for the first ten months of 1934 over the corresponding period of 1933.

The principal markets for this distribution are Manchuria, Phillippines, Egypt, Argentina, Dutch India, Siam, Australia and Chili, in the order named.[2]

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1. Isoshi Asahi,"The Secret of Japan's Trade Expansion"-p.89
2. United States Dept. of Commerce-Annual Trade and Economic Report of Japan,January 21,1935-pp.4-6

Japan's markets also extend into China, British India, South America and the Straits Settlements.

Osaka, Japan is the market through which Japan buys most of the textile fibre. Within the last four or five years it has bought on an average of 3,000,000 bales per year. As America and India provide most of her cotton it is on this exchange that the American cotton meets the test of competition with other growths, espically Indian, on both price and quality basis. In order to study American cotton competition from foreign growths the Osaka market is one place to visit. Here the larger part of the business in American cotton is not done by native importing merchants who buy from exporters in the United States as is the case in Liverpool and Havre, nor by American exporters who sell through their own agents to the mills, as in Milan, nor part one way and part the other, as in Bremen, but by Japanese firms which have their headquarters here in Osaka and branches in the United States, and which buy chiefly direct from growers and local dealers in country markets of the South and sell direct to Japanese spinners. There are three such Japanese firms, and they handle not only American cotton but also Indian, Chinese, and other foreign growths. These are the same firms encountered in Shanghai. They do a world-wide business, with buying offices or agencies in the

United States, Japan, China, India, England, and on the Continent of Europe. These three firms sell the mills of Japan more than one-half of the American cotton which the mills buy. Most of the other American cotton bought by Japanese spinners is handled by three or four large exporters in the United States through their own selling agencies in Osaka. The remaining portion of the business is done by a dozen or so importers in Japan who buy through C.I.F. agents from a large number of exporters in the United States. Osaka has a future market as well as a spot market.

Osaka is to be classed as both an import market and a mill market, here we find the offices of the large Japanese cotton merchant firms, the selling agencies of the American exporters, the C. I. F. agents who sell for American exporters to the smaller local merchants and to the big importer and the smaller local import merchants themselves, and offices of practically all of the spinning mills of Japan.

The salemen for the Osaka houses must have a broader knowledge of world growths of cotton than American salesmen need to have, for they must be expert not only on the American staple but on Indian, Chinese, and other growths as well.[1]

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[1] Alston Hill Garside," Cotton goes to Market", pp.128-129

FOREIGN TRADE

In 1934, Japan's foreign trade reached the highest level, with the exception of 1925, of any year in the history of the country, and was 18 per cent higher than in 1933. Exports from Japan Proper amounted to Yen 2,171,925 an advance of 16 3/4 per cent over 1933 and 54 per cent over 1932. The imports were valued at yen 2,282,531, an increase of 19 per cent over 1933 and 60 per cent over 1932.

Exports

The principal export outlet for cotton piece goods is the Far and Near East, but the gain in exports while below the increase of 32 per cent during 1933 over 1932 shows that consistent efforts are made to maintain old markets and to develop new ones.

One of the most important developments in Japan's foreign trade during the last two years has been the increase in shipments to Manchuria and Kwantung. These shipments accounted for 32 per cent of the total increase in exports over 1933 and 34½ per cent in the total increase in 1933 over 1932.

In 1934, there was a rise in the value of silver in terms of the yem which increased the purchasing power of Manchuria. This resulted in an increase in shipments of cotton goods of 42 per cent in quantity and 48 per cent in value going from Japan.

Exports to British India showed an unexpected gain in spite of the stringent trade restrictions. Shipment during the year

1934 consisting chiefly of cotton yarn and cotton piece goods increased 25 per cent over 1933.

The United States continued to hold first place in Japan's foreign trade, but exports to the United States accounted for only 18½ per cent of the total exports as compared with 26½ per cent in 1933, this represents a loss of 8 per cent. During 1934 the country applied restrictive measures against several of the Japanese products.

Imports

The total imports to Japan reached yen 2,282,531,000 the highest level since 1926. Raw material constituted the major portion amounting to 61½ per cent of the total. Cotton was by far the largest item, accounting for 52 per cent of the total. The United States held first place with 34 per cent of the total imports against 32½ per cent in 1933. The 1934 imports from United States were chiefly cotton with some iron. British India furnished 42 per cent,mostly cotton resulting from the Indo-Japanese Trade Agreement.

Trade with the United States at the end of 1934 showed an unfavorable balance amounting to yen 370,431,000 an increase of 187 per cent over the previous year. Part of this was due to the high cotton price. Imports of raw cotton from the United States increased 5 per cent in value but declined 13 per cent in quantity as the result of higher prices and the resumption of normal purchases of Indian cotton.[1]

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[1] Foreign Trade information from United States Dept. of Commerce Annual Trade and Economic Report on Japan for 1934-by the Office of Commercial Attache,Tokyo,January 21,1935 pp.94-96-97-99-101

Exports
(Value in Yen 1,000)

	Year		Comparison	
	1933	1934	Value	Per Cent
Cotton Yarn	15,712	23,485	Inc. 7,773	Inc.50%
Cotton Textiles	383,215	492,351	Inc.109,136	Inc.28½%

(1)

Imports
(Value in Yen 1,000)

	Year		Comparison	
	1933	1934	Value	Per Cent
Raw Cotton	604,847	731,425	Inc.126,578	Inc.20.8 %

(2)

Imports from United States
(In Thousands of Yen)

Raw Cotton	381,656	400,919

(3)

Exports to United States
(In Thousands of Yen)

	1933	1934
Cotton Textile	1,299	1,756

(3)

1.Appendix No.Vll- Annual Report on Japan
2.Appendix No.Vlll- Annual Report of Japan
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ENGLAND

The cotton industry in Great Britain in early years was stimulated by, climate, water-power, coal, inventive genius and business ability, as well as freedom from social and political restraints; all these factors continued to promote the growth in later years.[1]

The success of the industry was due to the unintentional protection given to it by the wool manufacturers and the British policy of prohibitions. Skilled artisans were forbidden to emigrate and were penalized by loss of citizenship and confiscation of property. They were forbidden to export tools or utensils used in manufacturing cotton as well as sketches, models or specifications, offences which were punishable by fine and imprisonment.

About the end of the nineteenth century, Great Britain found rivals in the United States and Japan, the one challenging its rank in world production and the other its position in world trade.

Until the World War, the cotton industry had a history of unbroken expansion and it dominated world markets. Since the World War, the cotton industry has spread throughout the world. The post war shipments of textile machinery from England to China, India, Egypt and Jugoslavia have been

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1. Copeland, M.T., "The Cotton Manufacturing in the United States" p.7

financed to a large extent by money raised in London at a time when Lancashire could not raise sufficient capital to modernize its mills with automatic looms.[1]

Labor

The cotton textile has been mechanized to such an extent that the good skilled labor has been replaced by unskilled, this makes it difficult for the mills of England using skilled labor to compete with mills using unskilled labor.

Unemployment of the cotton mill workers rose from 12 per cent in 1928 to 38 per cent in 1931 (last figure available).

Wages fell to still lower levels although several determined attempts were made to fight the longer working day as for instance, strike methods were used by 250,000 English Textile workers in 1931.[3]

Union

The union of textile workers in England numbers about 325,000 which is less than half of the local coal miners' union. The women in the textile industry are strongly organized, the union is stronger among the skilled than among the less skilled and has shown great stability in face of the depression.[2]

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1. Encyclopedia of Social Sciences, Volume 15, p. 585
2. Ibid, p.588
3. Meekins, Lynn W.-Commercial Attache, London "Economic Conditions in the United Kingdom" p.91

The plants of England are huge, producing standardized goods. The industry tends to elaborate specialization to the extreme in Lancashire, not only is every function a specialized industry, but whole towns concentrate on the production of separate counts or special fabrics.[1]

Government

England's trade has been retarded by Japanese competition in China and India, to such an extent that the British government, observing the flood of Japanese textile imports into the British colonies and dependences, and seeing the Lancashire spindles idle and the Lancashire workers thrown on the dole, summoned the Japanese to a conference and induced them to agree to a division of markets that was satisfactory from the British standpoint.

The policy of empire preference, adopted at the Ottawa conference, has given more favorable terms to British textiles; the new bargaining trade agreements of Great Britain are designed to protect England's textile exports in the countries with which she has bargaining arrangements.[2]

Machinery

Textile machinery exports expanded from 56,000 tons in 1933 to 78,000 tons in 1934, the largest since 1930; while this is encouraging to the domestic machinery industry, this indicates the growth of competing textile manufacturing industries in other countries.[3]

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[1] Encyclopaedia of Social Sciences, Volume 14, p.589

[2] Ibid p.588

[3] Meekins, Lynn W., Commercial Attache, "Economic Conditions in the United Kingdom " p.91

FOREIGN TRADE

Imports

In 1934 there was a change in the buying policy of Great Britain in regards to raw cotton ,the shift was from the United States to India and South America. The United States furnished 58 per cent of raw cotton in 1932,in 1933 there was a very small decline to 57 per cent but in 1934 a definite decline to 47 per cent,making a loss of 11 per cent in two years. The American middling cotton suffered most,with a loss of 295,098,900 pounds;the drop in American short-staple cotton was 911,700 pounds. Imports from Egypt were likewise smaller

	1933 Million pounds	1934 Million pounds
Total imports:		
Long-staple	277.8	242.8
Egypt	226.0	185.1
Sudan	36.9	44.3
Middling	1,070.4	943.1
United States	744.7	449.6
Brazil	12.7	144.3
Egypt	93.7	90.6
India	63.8	84.7
Peru	70.7	78.8
Argentina	23.4	42.8
Short staple	56.5	78.2
India	45.0	68.3
United States	9.2	8.3

Imports taken from-Economic Conditions in the United Kingdom 1934
Lynn W. Meekins,Commercial Attache,London p.85

Exports

The cotton textile industry is the largest contributor to British exports of manufactured goods, with more than 20 per cent of the total; piece goods are the most important item. The following is the five years'trend of British exports of manufactured piece goods, in million square yards: 1930-2407; 1931-1716; 1932-2197; 1933-2031; 1934-1993.

Cotton yarn exports have delcined steadily; the quantity in 1934 was the smallest in recent years, partly because of the exchange difficulties which sharply curtailed exports to Germany. The quantity of cotton piece goods exported was 55 per cent less than in 1924, and smaller than in either 1932 or 1933.

British India remained the leading market for piece goods but she took only one-third of her 1924 volume. Exports to China were the lowest for years and are causing much concern; it was one of the most important markets. There was an increase in the shipments to the Irish Free State, which was 20 per cent above those of 1933 and the highest ever recorded.[1]

In Great Britain, the imports of American goods were three and one-half times as large in value as British exports to the United States; in 1933, the ratio was less than 3 to 1; in 1932 it was 4 to 1. The imports of American cotton, suffering severely in 1934 from the competition of Indian and South American growths, decreased by about 592,000 bales.

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[1] Exports taken from-Economic Conditions in the United Kingdom, Lynn W.Meekins, Commercial Attache,London,p. 89

SUMMARY

In summing up the forgoing thesis I must present it by countries. United States is the largest producer of raw cotton in the world with India second, and China third. Japan and Great Britain do not produce raw cotton but are large users because of their leading textile industry for cotton piece goods.

United States

The cotton textile industry is one of the major industries of the world and has suffered severely from the changes in economic conditions since 1929.

The production of raw cotton is on the downward trend due to the Government restrictions. The demand for raw cotton both domestic and foreign is downward due to government regulations and the high price for cotton.

Between 1925 and 1935 cotton spindles decreased 20 per cent. During this period the industry continued to shift from the northern states to the southern states due to the advantages in cheaper labor and longer working hours.

Exports to all countries declined sharply in 1934 and 1935, however, trade with Japan held up the best. This decline can be definitely attributed to the government policy of a 12 cent loan to domestic producers.

India

The trend of the cotton acreage and production in India has been sharply upward although the present depression caused some recession it is now on the upward climb again.

Cotton prices in the United States have a direct bearing on cotton production in India. If prices for American raw cotton continue high production will continue to be large but if prices decline India production would be likely to decline.

China

The cotton trend in China has been upward and in all probability it will continue to be so and China will become self-sufficient in raw cotton.

The possibility of competition of Chinese cotton with American cotton is not improbable, particularly in Japan.

Production increased within the last fifteen years probably due to the demand of the Japanese owned mills in China.

There is very little competition by the Chinese owned mills for export trade as they are interested in domestic consumption and do not try for outside markets. All exports from China are by Japanese and British interests.

Brazil

The trend in cotton acreage and production in Brazil has been upward and during the last two years production has increased by three times its former amount. This increase may be due to very favorable weather, restrictions on the planting of coffee trees, active efforts on the part of the Government to encourage cotton production and increased interest of foreign and domestic capital in production.

The trend in the quality of Brazilian cotton is toward the American upland varieties which has increased to about one-half of the total crop and prospects are that this quantity will continue to be produced in larger proportions.

If the high price of American cotton should decline, it would reduce Brazilian cotton price about 13 per cent.

Japan

The cotton textile industry of Japan has been expanding constantly due to her extremely low manufacturing costs and her development of the industry in China.

England

The cotton textile industry in England is still on the downward trend due to the constant development of cotton manufacturing in India.

The cotton textile exports have declined which is due to great competition with Japan.

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